BIG MOUNTAIN ROAD, RS 487-1(5)3
FLATHEAD COUNTY, MONTANA

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

FLATHEAD COUNTY COMMISSION

STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Final Coordination

Project RS 487-1(5)3
Big Mountain Road

An environmental assessment (EA) was approved for content and public availability by the Federal Highway Administration on 22 September 1993. The document was then distributed to local, state and federal agencies with jurisdiction or expertise related to the project and to interested members of the public.

A location and design public hearing was held on 07 December 1993 to discuss the EA and the location and design of the project.

Comments received as a result of distribution of the EA and as a result of holding the public hearing have been incorporated with the EA (see Appendices C and D of the EA). The EA has been revised, where needed, to address the comments. The completed document is attached.

A Finding of No Significant Impact (FONSI) has been completed and approved by the Federal Highway Administration. The FONSI is also attached and follows this page.

FINDING OF NO SIGNIFICANT IMPACT

FOR

RS 487-1(5)3
BIG MOUNTAIN ROAD

THE FEDERAL HIGHWAY ADMINISTRATION HAS DETERMINED THAT THIS PROJECT WILL NOT HAVE ANY SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT. THIS FINDING OF NO SIGNIFICANT IMPACT IS BASED ON THE ATTACHED ENVIRONMENTAL ASSESSMENT AND INPUT FROM THE LOCATION AND DESIGN PUBLIC HEARING. THIS FINDING HAS BEEN INDEPENDENTLY EVALUATED BY THE FEDERAL HIGHWAY ADMINISTRATION AND DETERMINED TO ADEQUATELY AND ACCURATELY DISCUSS THE ENVIRONMENTAL ISSUES AND IMPACTS OF THE PROPOSED PROJECT AND PROVIDES SUFFICIENT EVIDENCE AND ANALYSIS FOR DETERMINING THAT AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. THE FHWA TAKES FULL RESPONSIBILITY FOR THE ACCURACY, SCOPE AND CONTENT OF THE ATTACHED ENVIRONMENTAL ASSESSMENT.

D C Lewis

for Federal Highway Administration
Division Administrator

2-25-94
Date

PROJECT NO. RS 487-1(5)3

BIG MOUNTAIN ROAD
FLATHEAD COUNTY

ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT

This document is prepared in conformance with MEPA requirements and contains the information required for an environmental assessment under the provisions of ARM 18.2.237(2) and 18.2.239. It is also prepared in conformance with NEPA requirements for an environmental assessment under 23 CFR 771.119 and 40 CFR 1500 to 1508.

Submitted pursuant to 42 U.S.C. 4332(2)(c) by:

Flathead County Commission

and

U.S. Department of Transportation, Federal Highway Administration

and

State of Montana, Division of Highways, Department of Transportation

Approved:

2-11-94	William R. Webstrom
Date	for Flathead County
2/24/94	Bruce J. Stockstad
Date	for Montana Department of Transportation
2-25-94	R. C. Lewis
Date	Federal Highway Administration

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1. DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of improving the existing Big Mountain Road, Federal Aid Secondary 487, in Flathead County, Montana, beginning at Milepost 2.5 at East Lake Shore Drive near the City of Whitefish and ending at the Big Mountain Ski and Summer Resort. The proposed improvements will include reconstruction of the roadway either on its existing alignment or on a new alignment (Section 3. ALTERNATIVES), the acquisition of right-of-way and construction of related drainage structures, erosion control, re-topsoiling, seeding, guardrail, signing, striping, utility relocations and other features. The proposed new roadway will be a 40 foot wide, two-lane paved roadway with paved shoulders (see Figure 1-2) and, where appropriate and feasible, left turn bays, truck climbing lanes and slow moving vehicle pullouts. The proposed project will be approximately 5 miles in length (the exact length will depend on the alternative selected). The approximate location of the proposed project is shown on Figure 1-1.

Trees will be removed to allow construction of the proposed roadway and to provide an appropriate clear zone (the zone adjacent to the roadway that must be kept clear of obstacles to provide adequate sight distance and safety). The clear zone will not be an area of consistent width. Its width will vary based on standards contained in the AASHTO Roadside Design Guide[1]. The variable clear zone width will depend on excavation and embankment slope ratios, traffic volumes and degree of horizontal curvature of roadway. Clearing may be done in some areas where shading might occur during winter months to help reduce snow and ice accumulation on the roadway.

Limited access control will be implemented with the proposed project.

The roadway has been designated a Federal Aid Secondary highway and, as such, will receive 80 percent Federal Funding under the Surface Transportation Program of the Intermodal Surface Transportation Efficiency Act of 1991. The remaining 20 percent will be funded by the State of Montana under the Secondary Roads Program. Under this program, the Flathead County Commission determines priorities for use of the County's share of Secondary Funds as allocated by the Montana Highway Commission.

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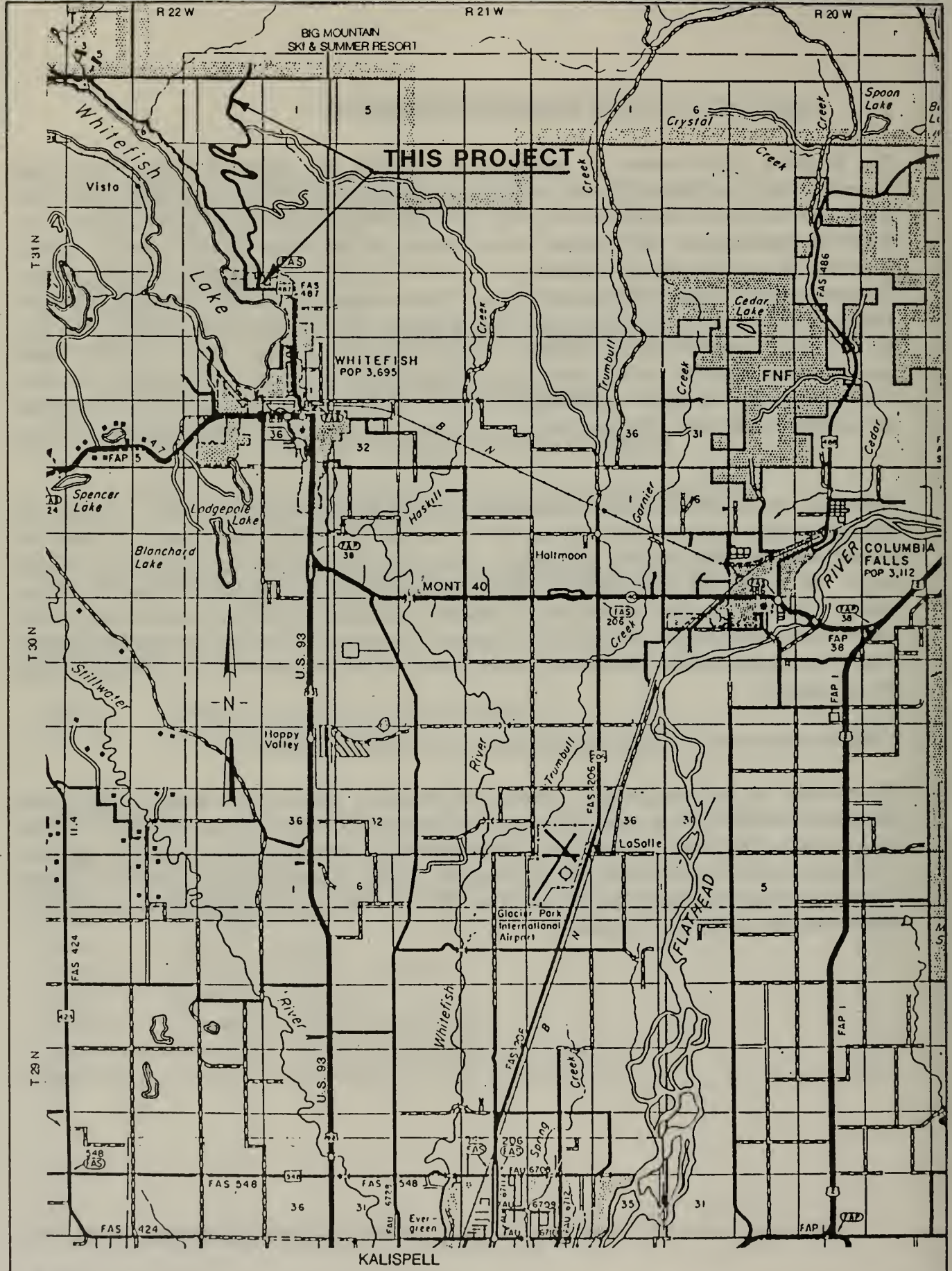
[1]American Association of State Highway and Transportation Officials, Roadside Design Guide, October 1988.



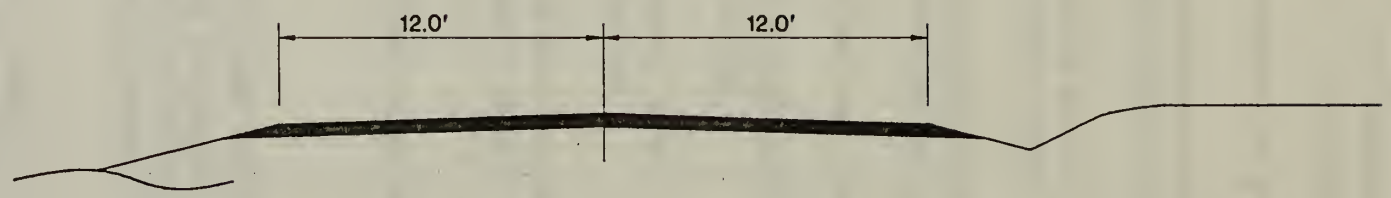
SCALE: 1/2" = 1 Mile

LOCATION MAP

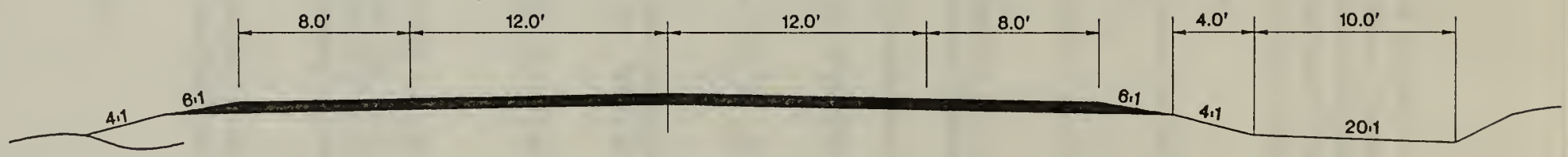
BIG MOUNTAIN ROAD

FIGURE 1-1

BIG MOUNTAIN ROAD



EXISTING ROADWAY - TYPICAL SECTION



40' ROADWAY - TYPICAL SECTION

PROPOSED TYPICAL CROSS - SECTION

FIGURE 1 - 2

2. PURPOSE AND NEED

The purpose of the proposed project is to provide an improved highway between the City of Whitefish and the Big Mountain Ski and Summer Resort (the Resort). Several alternatives are under consideration (Section 3. ALTERNATIVES) to upgrade the existing Big Mountain Road by reconstructing it on its current alignment or on a new alignment to meet current design standards to improve safety and to accommodate existing and expected future traffic volumes.

As described in following paragraphs, the proposed project will:

1. Improve substandard horizontal curves, vertical curves, roadway widths and other design features to meet current design standards.

2. Improve the capacity and level of service of the roadway to accommodate existing and projected traffic volumes.

3. Improve the intersection of the Big Mountain Road with East Lakeshore Drive to better accommodate the heavy traffic volumes between Whitefish and the Resort.

4. Provide a safer and more comfortable facility for pedestrians and bicyclists.

5. Improve safety throughout the project length and, in particular, in areas where accident rates are high.

6. Improve emergency access to the Resort area and to other residences and businesses in the area.

7. Coordinate with other projects planned for the area including the Big Mountain Ski and Summer Resort Expansion and the Whitefish BN Overpass reconstruction.

2.1. EXISTING CONDITIONS COMPARED WITH DESIGN STANDARDS

2.1.1. Existing Conditions

The existing roadway was constructed in the 1930's and 1940's and was paved with asphalt in the early 1960's. The existing roadway has an asphalt paved surface that is generally 24 feet wide (See Figure 1-2). The road was designated as a Federal Aid Secondary highway by Flathead County, the Montana Department of Highways and the Federal Highway Administration on 11 November 1989.

Grades on the existing roadway average 5.8% with significant lengths of roadway with a grade of approximately 8%. Grades exceed 10% in some areas for short distances.

There are four horizontal curves on the existing roadway with radii of less than 100 feet with resulting safe travel speeds of less than 20 mph. There are an additional four curves on the existing roadway with radii less that 250 feet (30 mph) and three additional curves with radii between 250 and 500 feet with resulting safe travel speeds between 30 and 40 mph.

Buses, in particular, have difficulty negotiating the steep grades and sharp switchbacks on slick roads in the winter.

Stopping sight distance is generally greater than 200 feet except at the four curves with less than 100 foot radii.

2.1.2. Design Standards

Based on existing and projected traffic volumes and on the mountainous terrain through which this proposed Federal Aid Secondary highway improvement project passes, the following current design standards apply:

	Minimum Standards	Preferred if Practical & Feasible
Design Speed	30 mph	40 mph
Maximum Degree of Curvature	22° 45'	12° 15'
Minimum Radius of Curvature	250 Feet	470 Feet
Maximum Gradient	10 Percent	10 Percent
Minimum Stopping Sight Distance	200 Feet	200 Feet
Minimum Roadway Width	40 Feet	40 Feet

2.1.3. Comparison

A comparison of these design standards with existing conditions indicates that:

- Eight existing horizontal curves are significantly below 30 mph standards.
- Three additional horizontal curves are below 40 mph standards.
- Vertical grades, except for short distances, are generally within design standards.
- Minimum stopping sight distance, except at the four curves with less than 100 foot radii, is available throughout most of the project.
- The existing roadway width is significantly less than minimum standard for this type of roadway and for existing and projected traffic volumes.

The proposed project will improve the existing horizontal curves, vertical grades and roadway widths to meet or, where practical and feasible, exceed the design standards listed above. Meeting these standards will improve the safety, capacity and driving comfort of the roadway.

The proposed 40 foot wide roadway will provide 8 foot wide shoulders which will meet current design standards based on existing and project traffic volumes on the Big Mountain Road. The wider shoulders will help accommodate buses, pedestrians, bicyclists and emergency stops.

2.2. TRAFFIC VOLUMES AND CAPACITY

2.2.1. Volumes

Existing and projected traffic volumes on the Big Mountain Road are summarized as follows:

TRAFFIC VOLUMES

1990 ADT	=	1,300	Present Average Daily Traffic
1994 ADT	=	1,600	Traffic at Letting Date
2014 ADT	=	3,400	Design Year Traffic
2014 DHV	=	1,050	Design Hourly Volume
D	=	55-45%	Directional Distribution
T	=	3.2%	Trucks, Medium and Heavy
All Trucks	=	25.0%	All Trucks
RV's	=	3.0%	Recreational Vehicles

2.2.2. Capacity and Level of Service (LOS)

The capacity of the existing roadway, computed using the 1985 Highway Capacity Manual (HCM)[2], is estimated to be generally 1,000 vehicles per hour.

As indicated above, the Design Hour Volume projected for this roadway is 1,050 vehicles per hour. Without the proposed improvements, the capacity of the roadway will be exceeded by the year 2014.

Because the design speed of this project is relatively low (30 mph), no level of service estimates have been made.

The proposed project will provide a wider roadway with turnouts for slower moving vehicles and wider shoulders for pedestrians and vehicles. These improvements will significantly improve the capacity of the roadway and, as a result, improve safety and driving convenience. It is estimated that the capacity of the new, 40 foot wide roadway will be approximately 1,500 vehicles per hour.

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[2]Transportation Research Board, National Research Council, Special Report 209, Highway Capacity Manual, 1985.

2.3. INTERSECTION WITH EAST LAKESHORE DRIVE

Turning movement counts were conducted at the intersection of Big Mountain Road with East Lakeshore Drive (the beginning of the proposed project), as shown on Figure 2-1. The counts were taken on a weekday during the ski season and help compare the various turning movements at the intersection.

The proposed project will help to accommodate the heavier traffic volumes between the Big Mountain area and the City of Whitefish by improving the intersection.

2.4. PEDESTRIANS AND BICYCLISTS

A significant number of pedestrians and bicyclists use the existing roadway and volumes are expected to increase in the future. As indicated in 2.1. EXISTING CONDITIONS, the existing roadway is narrow (generally 24 feet wide) with few areas with widened shoulders. Pedestrians and bicyclists travelling the corridor are required to use the existing roadway and in many areas are required to travel in traffic lanes. Conflicts between vehicles and the slower moving pedestrians/bicyclists occur and, as a result, safety and level-of-service are reduced.

The proposed project will improve the safety and capacity of the roadway by providing a wider roadway with improved facilities for pedestrians and bicyclists.

2.5. ACCIDENT HISTORY

Accidents which occurred and were reported and recorded during the years 1985 through 1990 are summarized on Figure 2-2.

A high hazard location study (HHLS) was completed in 1981[3] which identified the 22 highest accident locations on county roads in Flathead County. Two of these locations were located on the Big Mountain Road, as follows:

- Site 19, Big Mountain Road Lower Switchback (Approximate Station 126+00) and

- Site 20, Big Mountain Road Upper Switchback (Approximate Station 200+00).

Of the 22 sites evaluated, the two Big Mountain Road sites received the following rankings:

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[3]Flathead County and the Traffic Safety Division of the Montana Department of Justice, Flathead County High Hazard Location Study, December 1981.

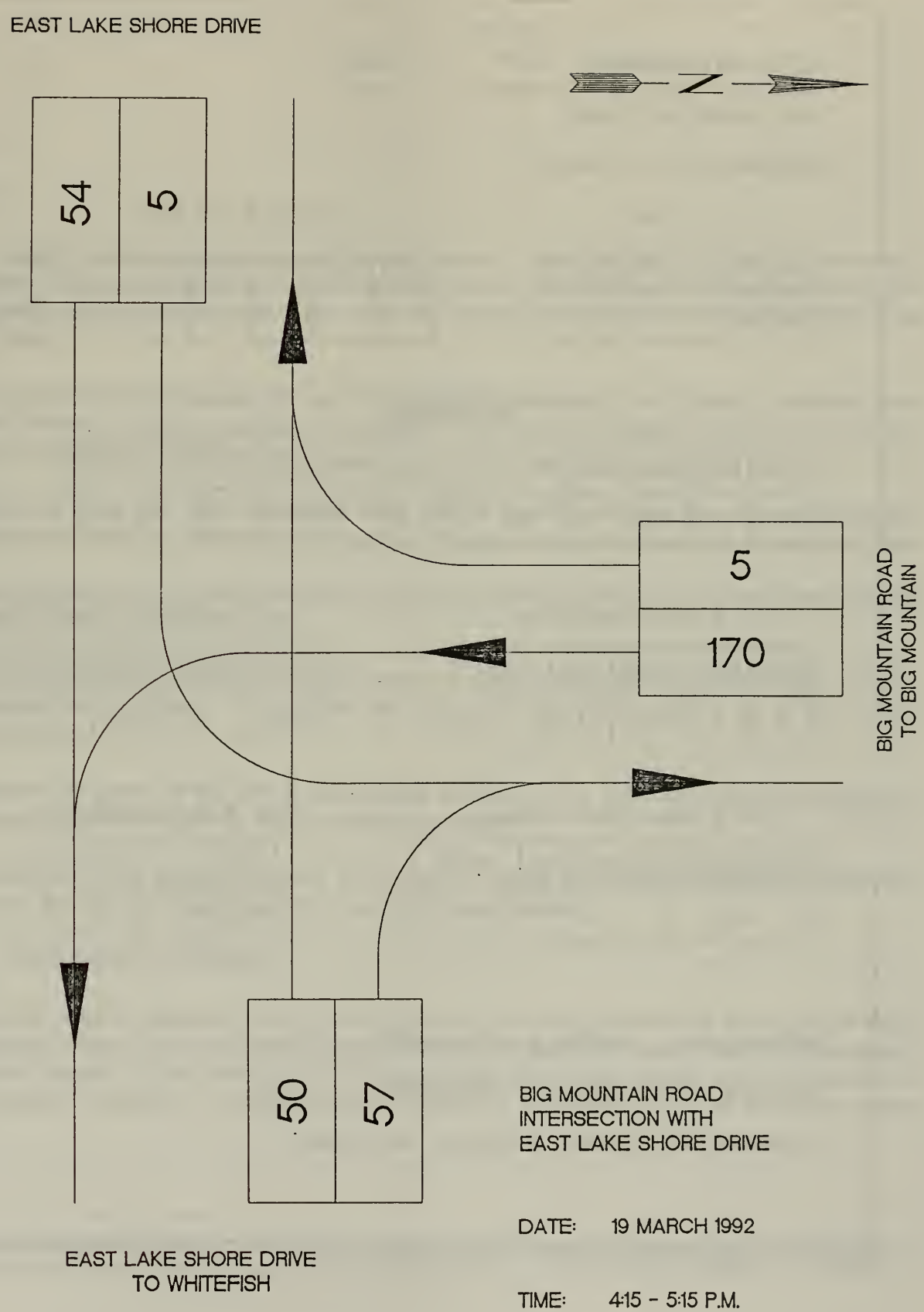
EAST LAKE SHORE DRIVE
N
54
5
5
170
BIG MOUNTAIN ROAD
TO BIG MOUNTAIN
50
57
BIG MOUNTAIN ROAD
INTERSECTION WITH
EAST LAKE SHORE DRIVE
DATE: 19 MARCH 1992
TIME: 4:15 - 5:15 P.M.
EAST LAKE SHORE DRIVE
TO WHITEFISH

FIGURE 2-1

ACCIDENT SUMMARY
PROJECT NO. RS 487-1(5)1
BIG MOUNTAIN ROAD

NUMBER OF ACCIDENTS:

BY YEAR

85	86	87	88	89	90
20	13	11	12	13	7

BY DAY OF WEEK

SUN	MON	TUE	WED	THU	FRI	SAT
6	9	6	7	11	13	24

BY MONTH

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
14	14	15	4	1	0	5	2	1	1	7	12

BY ROAD CONDITION

DRY	WET	SNOW	ICY	SLUSH
17	3	17	37	2

BY WEATHER CONDITION

CLEAR	RAIN	SNOW	FOG	CLOUDY
29	3	15	1	28

BY LIGHT CONDITIONS

DAYLIGHT	DAWN/DUSK	DARK
42	2	32

BY # OF INJURIES

0	1	2	3	4
50	18	7	1	0

NUMBER OF 1 VEHICLE ACCIDENTS 53

NUMBER OF 2 VEHICLE ACCIDENTS 23

NUMBER OF ALCOHOL RELATED ACCIDENTS 5

Figure 2-2, Accident Summary

	Hazard Index	Benefit-Cost Ratio	Priority Index
Site 19	13	11	3
Site 20	1	5	1

The hazard index evaluates the relative hazardousness of each site based on number of accidents, accident severity, accident rate, volume/capacity ratio, sight distance, driver expectancy and information system deficiencies. The lower the number, the higher the hazard relative to the other sites.

The benefit-cost ratio evaluates the cost of required improvements with respect to benefits to be gained due to the expected decrease in accidents. The lower the number, the better the benefit-cost ratio relative to the other sites.

The priority index takes both the hazard index and the benefit-cost ratio into account to compute a priority list ranking. The lower the number, the higher the priority relative to the other sites.

Recommendations in the HHLS for short-term improvements at Site 19 included improvements to signing, delineation and striping.

Recommendations for short-term improvements at Site 20 included improvements to signing, delineation and striping. Installation of guardrail was recommended as a short term improvement.

Because of the scope of the HHLS and funding available at the time, no significant changes in alignment, grades or roadway width were recommended.

The purpose of the proposed project is to improve safety and reduce accidents at these two locations and at other similar locations on the existing roadway.

2.6. EMERGENCY ACCESS

During the scoping process, concern was expressed by several individuals and agencies about emergency access to or from the Big Mountain Resort during wild fires or other potential natural or other disasters. The Whitefish City-County Master Plan[4] recommends the development of a secondary or back-up emergency access to the Big Mountain area so as to accommodate

[4]Flathead Regional Development Office, Whitefish City-County Master Plan, adopted by City of Whitefish, 07 December 1987 and by Flathead County, 18 November 1987.

present and future development that is occurring there. The Montana Department of State Lands has expressed concern and made this recommendation[5]. This issue has also been raised several times during the scoping meetings.

The existing Big Mountain Road is currently the only public access route and the only all-weather route available -- access would be inadequate should such an emergency occur when, at the same time, the roadway is blocked or impassable or when rapid evacuation of the area is needed and the capacity of the existing roadway is exceeded.

The proposed project will: 1) provide an alternate access route to the Big Mountain Resort; 2) improve the existing access; or 3) provide a combination of an alternate access route and an improved existing access.

2.7. BIG MOUNTAIN SKI AND SUMMER RESORT EXPANSION

The U.S. Forest Service is currently preparing an environmental impact statement for a proposal (separate from the proposed Big Mountain Road project) to expand winter and summer recreation opportunities at the Big Mountain Ski and Summer Resort[6].

This proposed action includes the construction of 440 acres of ski terrain, two T-bars, three chairlifts, a warming/eating hut and an access road to the summit. The proposed development will increase the skier capacity from 6,000 skiers at one time to 12,100 skiers at one time. Proposed summer activities expansion includes a mountain bike trail, horse trail, hiking trail, alpine slide and paragliding.

Completion of the proposed development will occur over an extended period of time and will depend on demand and financial capabilities.

Traffic projections presented in Section 2.2.1. of this document have taken the proposed resort expansion into account and reflect the increased traffic volumes that are expected to be generated.

The proposed Big Mountain Road improvements will help accommodate increased traffic volumes expected as a result of these planned expansions to the Big Mountain Ski and Summer Resort.

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[5]Mike DeGrosky, Kalispell Unit Fire Supervisor, Northwestern Land Office, Montana Department of State Lands, memorandum dated 07 October 1992.

[6]Bert Stout, District Ranger, Talley Lake Ranger District, U.S. Forest Service, USDA, Big Mountain Ski and Summer Resort Expansion, Notice of Intent, 16 January 1992.

2.8. RS 487-1(2)0, BN OVERPASS, WHITEFISH

This project (separate from the proposed Big Mountain Road project) includes the replacement of the existing railroad overpass structure in Whitefish. This proposed project will include the construction of a new 395 foot long bridge and approaches to the existing roadway. The project will include two 12 foot driving lanes, a 10 foot shoulder on each side and a six foot sidewalk on each side separated from the shoulder by a concrete barrier rail. The proposed project will improve the existing roadway and overpass to provide for a 30 mph design speed. The first phase of construction of the overpass began in 1993.

This project, in combination with the proposed Big Mountain Road improvements, is considered important to improve safety and to accommodate existing and projected traffic volumes between the City of Whitefish and the Big Mountain Ski and Summer Resort.

2.9. WISCONSIN AVENUE/EAST LAKESHORE DRIVE

Participants in public scoping meetings have indicated that consideration should be given to also improving the road (Wisconsin Avenue/East Lakeshore Drive) from the Whitefish Railroad Bridge to the Big Mountain Road. This would complete the last link between the City of Whitefish and the Big Mountain.

It is generally recognized that improvements to this section of the roadway may be desirable and needed in the future. No projects are programmed by the Montana Department of Transportation, Flathead County or the City of Whitefish to improve the roadway at this time and no funding sources have been identified.

3. ALTERNATIVES

This section:

- Describes alternatives studied and evaluated in detail in this environmental assessment.
- Describes alternatives that are under consideration but are not evaluated in detail in this environmental assessment. Reasons why they are not evaluated in detail are discussed.
- Compares the proposed alternatives.
- Discusses the preferred alternative.

3.1. ALTERNATIVES EVALUATED IN DETAIL

Alternatives studied and analyzed in detail in this document were selected based on engineering and environmental studies completed to-date, on information received during the scoping process (Section 5.1. COMMENTS AND COORDINATION) and issues that have been identified (Section 5.2. ISSUES). Alternatives studied in detail are shown on Figure 3-1 and are described in following sections. Alignments described in this section are subject to further adjustment to best meet the needs of the project, to respond to landowner and other public concerns and to keep environmental impacts to a minimum. Possible adjustments that have been suggested are discussed below, with the related alternative.

3.1.1. The No-Build Alternative

This alternative is included, as required by Paragraph 1502.14(d) of the CEQ Regulations[7], and will consist of leaving the existing roadway as-is with no changes or improvements.

3.1.2. Alternative A

Alternative A generally follows the existing alignment and grades with the following exceptions:

- Minor adjustments in horizontal alignment are proposed throughout the project length to correct deficiencies in existing horizontal curves as compared with design standards.

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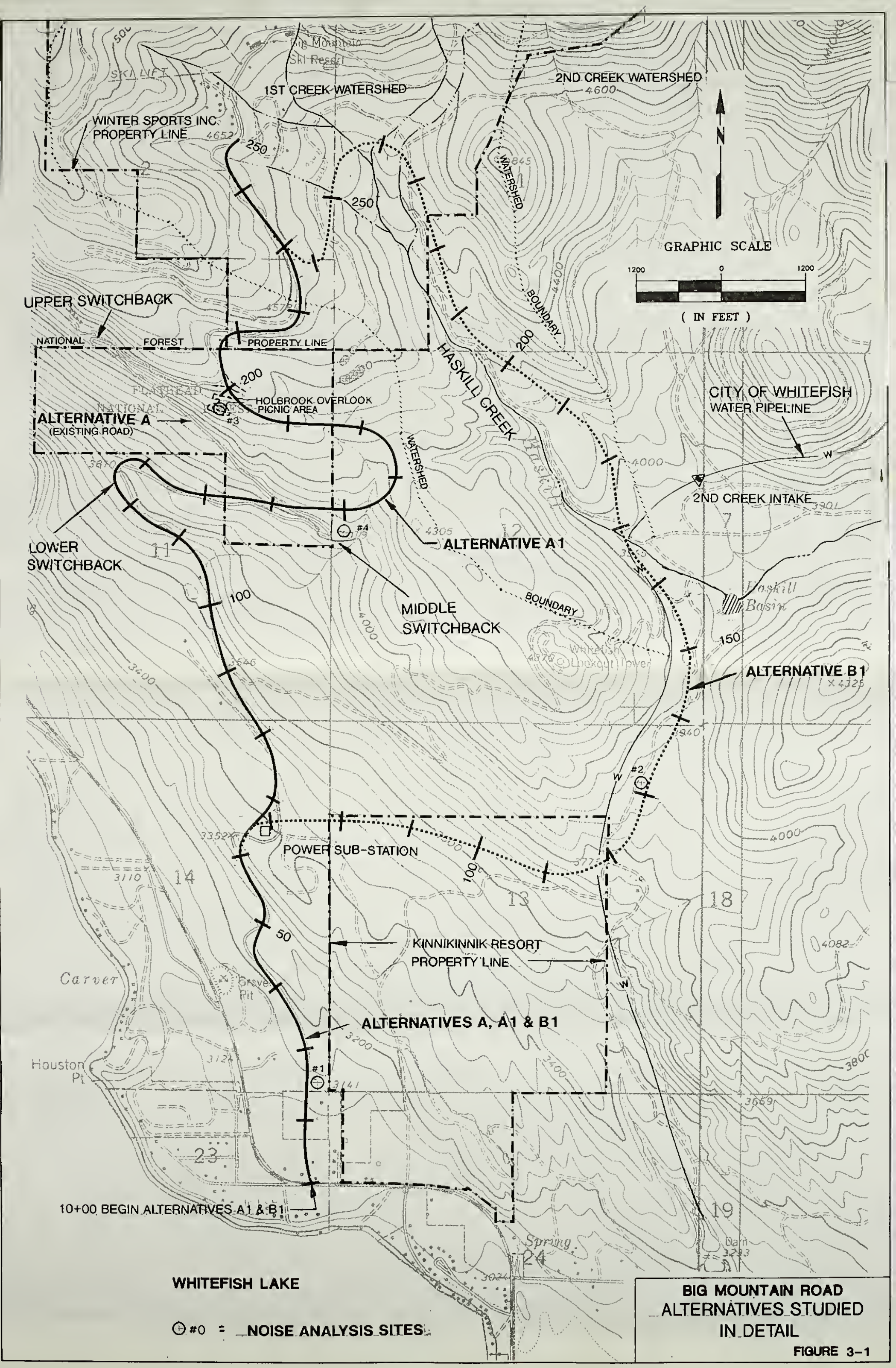
[7]Council on Environmental Quality, Executive Office of the President, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, Reprint 40 CFR Parts 1500-1508 (as of July 01, 1986).



BIG MOUNTAIN ROAD
ALTERNATIVES STUDIED IN DETAIL

FIGURE 3-1

- The two curves between Stations 45+00 and 53+00 that are currently suitable for approximately 35 mph will be improved to 40 mph design standards.

- To improve existing substandard curves near the Pacific Power and Light electrical sub-station near Station 65+00, it is proposed that the alignment be relocated to the other side (west and north) of the facility.

- To improve the existing curve with a radius of less than 100 feet near Station 126+00 (the lower switchback), a wider curve meeting 30 mph design standards is proposed.

- Because of extreme constraints due to steep mountain slopes, the middle and upper switchbacks would receive only minor improvements in alignment and grade and, except for a wider roadway and improved signing, will remain essentially as they are now.

- Minor adjustments in vertical alignment are proposed throughout the project length to eliminate existing short segments of sub-standard grades and to provide adequate sight distance.

3.1.3. Alternative A-1

Alternative A-1 is the same as Alternative A with the following exception:

- A new alignment is proposed from Station 140+00 to 205+00, as shown on Figure 3-1, to bypass the middle and upper switchback curves.

3.1.4. Alternative B-1

Alternative B-1 will be the same as Alternatives A and A-1 from the beginning of the project to approximate Station 60+00 (near the existing Pacific Power and Light electrical sub-station). The alignment will then proceed easterly, then northerly around the old Lookout Tower to near Haskill Creek. The alignment will then generally parallel the creek until it enters the Big Mountain Ski and Summer Resort area where it will connect with the existing alignment.

Possible variations of the alignment for B-1, from what is shown on Figure 3-1, that might be considered include:

- Move the proposed curve around the power sub-station approximately 700 feet to the north, then continue easterly 200 to 400 feet north of and approximately parallel with the Alternative B-1 alignment shown on Figure 3-1. This adjustment has been suggested by representatives of the Kinnikinnik Development to better utilize proposed residential property. This adjustment will slightly increase the project length, slightly improve vertical grades and will increase the angle and length of the curve north of the power sub-station. This adjustment will also affect two to three additional landowners near and north of the power-substation.

- Eliminate the crossing of Haskill Creek by keeping the alignment entirely on the west side of the creek. This adjustment would create substantially greater excavation and embankment and related greater right-of-way requirements and land use impacts.

The intersection at Station 60+00, of Alternative B-1 with the existing alignment, will be important and will require careful planning and design to ensure that it operates safely and efficiently. With careful planning and design, no particular problems are anticipated.

3.2. ALTERNATIVES NOT EVALUATED IN DETAIL

Several alternatives have been proposed by agencies or the public that are not evaluated in detail in this environmental assessment. These alternatives are shown on Figure 3-2, and a brief description and reasons for their not receiving a detailed evaluation in this document are included in following paragraphs.

3.2.1. Alternative B

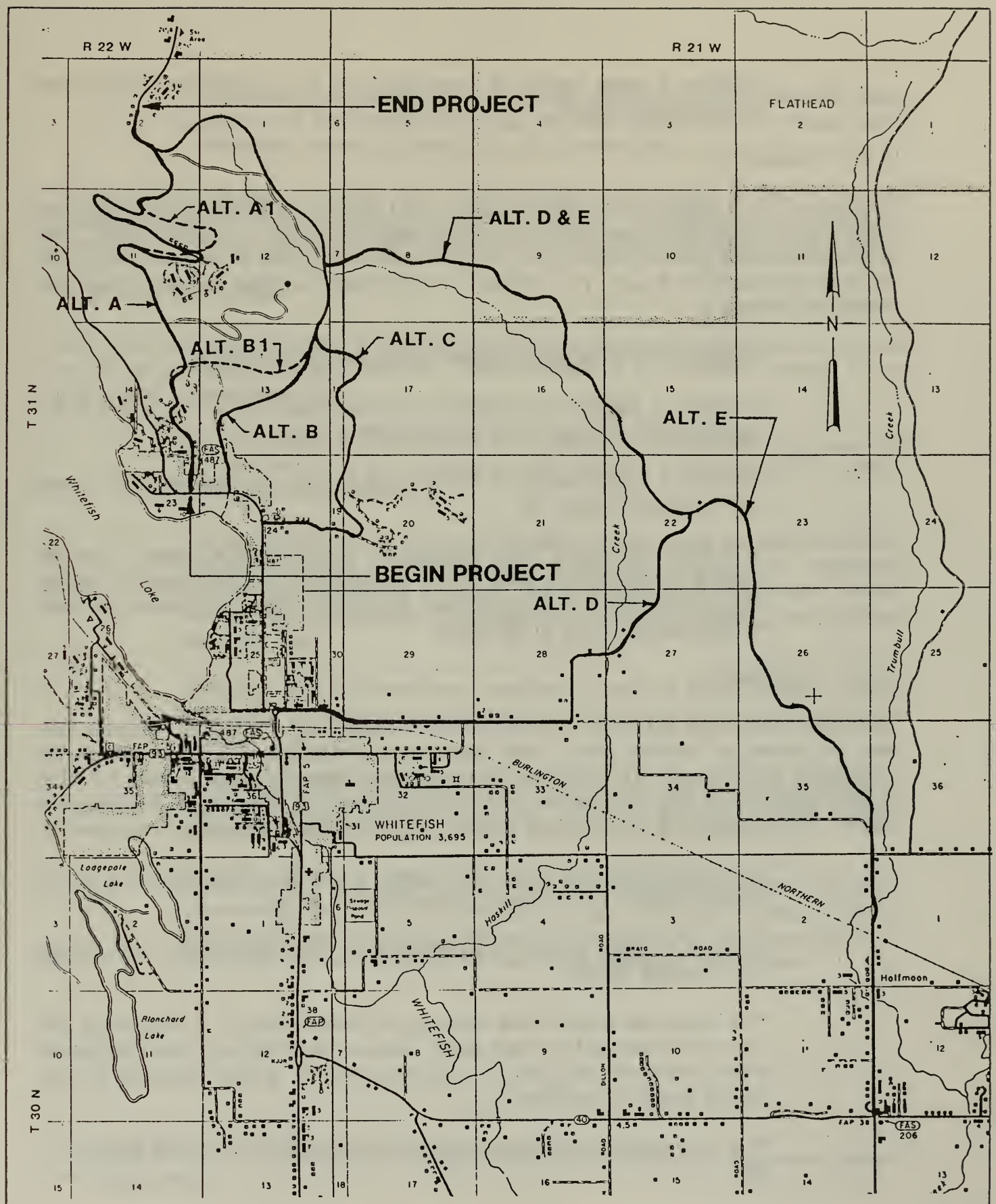
This alternative is similar to Alternative B-1 except that the first 1.5 miles of the project would be constructed approximately parallel with and approximately 0.3 miles east of the existing alignment on an extension of Murdock Lane. This alternative is not evaluated in detail in this environmental assessment because it:

- Offers no design or alignment advantages over Alternative B-1,
- Received little or no public support during the scoping process,
- Bisects the proposed Kinnikinnik development and would adversely affect a proposed golf course, and
- Requires a larger portion of construction on new right-of-way with related environmental impacts.

3.2.2. Alternative C

Alternative C, as shown on Figure 3-2, follows an alignment east of Alternative B for approximately 2.5 miles before it connects with the alignment proposed for Alternative B-1. From this point to the end of the project at the Big Mountain Ski Resort, it follows the same alignment as Alternative B-1. This alternative is not evaluated in detail in this environmental assessment because it:

- Offers no alignment or design advantages over Alternative B-1,
- Received little or no public support during the scoping process,



SCALE: 1" = 1 Mile

ADDITIONAL ALTERNATIVES

BIG MOUNTAIN ROAD

PROJECT: RS 487-1(5)3

FIGURE 3-2

- Requires a larger portion of construction on new right-of-way with related environmental impacts.

3.2.3. Alternative D

Alternative D will begin near the planned new railroad overpass in Whitefish and will extend easterly along East Edgewood Drive for approximately 2.2 miles to Haskill Creek. The alignment will then parallel Haskill Creek for approximately 6.5 miles to the end of the project at the Big Mountain Ski Resort. This alternative is not evaluated in detail in this environmental assessment because it:

- Received little or no public support during the scoping process,

- Will create a highway that is significantly longer than Alternatives A, A-1 or B-1 (approximately 9 miles versus approximately 5 miles),

- Requires a larger portion of construction on new right-of-way with related environmental impacts, and

- Will follow the Haskill Creek Drainage for approximately 6.5 miles. This will increase the potential for water quality impacts due to highway runoff during and after construction. It will also place the highway closer to riparian and other wildlife habitat related to the stream.

3.2.4. Alternative E

Alternative E will begin at Montana Highway 40 approximately one mile west of Columbia Falls and will follow an existing county road north for approximately 2.3 miles through the Community of Halfmoon. The alignment then extends northwest for approximately 3.0 miles to near Haskill Creek and then parallels it, for approximately 5.4 miles, to the Big Mountain Resort. This alternative is not evaluated in detail in this environmental assessment because it:

- Will create a highway that is significantly longer than Alternatives A-1 or B-1 (approximately 11 miles versus approximately 5 miles),

- Requires a larger portion of construction on new right-of-way with related environmental impacts,

- Will follow the Haskill Creek Drainage for approximately 5.4 miles which will increase the potential for water quality impacts due to highway runoff during and after construction and place the highway closer to riparian and other wildlife habitat related to the stream.

- Will have significantly higher construction costs than other proposed alternatives, and

- The Montana Department of State Lands has indicated that Alternative E crosses a section of State-owned land and the right-of-way required would put a considerable amount of timber land out of production[8].

This alternative has been eliminated from further consideration because it fails to meet the purpose and need for the project which, as stated in Section 2. PURPOSE AND NEED of this document, is to improve the Big Mountain Road from Whitefish to the Big Mountain Ski Resort.

3.2.5. One-Way Couplet

A one-way couplet would include two separate roadways, one for traffic uphill to the Resort and one for traffic downhill toward Whitefish. This alternative is not evaluated in detail in this environmental assessment because:

- It would require the construction of an additional roadway and maintenance of two roadways. To allow passing in each direction, each portion of the couplet would require two lanes.

- The construction of an additional roadway would require the conversion of a substantial amount of additional land to highway right-of-way. Additional environmental impacts would result including impacts to noise, water quality, land use, cultural resources, threatened or endangered species, forest lands and visual quality.

- Though a few comments were received during the public scoping process suggesting the one-way couplet concept, it has not received significant public support.

- A one-way couplet will significantly increase travel time and inconvenience for residences along the existing alignment. Residents would be required to travel the uphill alignment to the resort, then travel downhill to their homes.

- If Alternative B-1 is selected for construction, consideration could be given to implementing the one-way couplet concept using Alternative B-1 for uphill traffic to the Resort and the existing roadway for downhill traffic. Existing deficiencies in the existing roadway would still need to be addressed and corrected.

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[8]Kenneth R. Bullman, Timber Management Forester, Kalispell Unit, written comments in response to 20 March 1991 scoping meeting.

3.2.6. Mass Transit

Mass transit alternatives include constructing new or improving existing modes of mass transit. Two alternatives for mass transit have been suggested at public scoping meetings:

- Improve and add to the existing bus system, and

- Construct a cog railroad or a tramway/gondola system from a terminal in or near the City of Whitefish (perhaps from the existing railroad station) to the Resort.

Title V of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) recognizes the importance of mass transit in the Nation's transportation system. The transit formula and discretionary programs requirements and program structure remain basically unchanged from previous law, but achieve such objectives as transit and highway funding flexibility, increased use of the trust fund and an expanded research program. The basic matching ratio for construction projects is 80 percent Federal, the same as for highway projects in the Federal Highway Administration Programs. Special programs are also available for transit related to the Clean Air Act and the Americans with Disabilities Act. Assistance is also available for operating costs in some cases. Though there may be exceptions, transit funds are usually applied to areas with populations of greater than 200,000 or Metropolitan Planning Organizations (MPO) designated by state transportation departments -- neither condition applies to the proposed project area.

Increasing the use of mass transit for transportation to the Resort will reduce reliance on individual passenger cars and may reduce or slow the increase of traffic volumes on the existing Big Mountain Road. This will result in decreases in energy use, air quality impacts and other highway traffic related environmental impacts. This will also decrease the area required for vehicle parking at the Resort.

Several participants at the third public scoping meeting stressed the importance of encouraging and supporting mass transit and have indicated that any improvements to the Big Mountain Road should be selected to support and encourage mass transit.

Mass transit alternatives will not replace the need for a safe and adequate roadway to the Big Mountain area. Improvements to the Big Mountain Road will be required with or without the implementation of mass transit alternatives.

None of the proposed alternatives (as listed in Section 3.1.) will preclude, limit or discourage mass transit.

<u>Bus Systems</u>

Public comment and information from transit companies supplying bus service has indicated that buses have considerable difficulty getting up the existing roadway during the winter. All of the proposed alternatives, as listed in Section 3.1., will support bus transit by providing a wider, safer highway for all larger vehicles, including buses. In some areas, it will be practical to provide separate climbing lanes or pullouts.

The Rail and Transit Division of the Montana Department of Transportation has indicated a willingness to work with Flathead County, in combination with improvements to the Big Mountain Road, to help provide direction and obtain Federal or other funding for improving and upgrading the existing mass transit system.

Bus service is currently provided to the Big Mountain area by the Whitefish Area Rapid Transit (WART). This system is operated by a private contractor and is sponsored by the community of Whitefish through the Whitefish Chamber of Commerce. The system is supported financially by the Whitefish business community, Winter Sports, Inc. and ridership fees. Ridership fees provided approximately 40% of operating costs in the 1991-1992 winter season.

WART operates during the ski season for 105 to 109 days per year and normally 6 round trips per day from 8:00 a.m. to 10:30 p.m. Passengers are boarded in Kalispell and Whitefish at motels, shopping malls and other businesses. Approximately 13,000 passengers per year are served at a total cost of $32,600 (including ridership fees and other financial support).

Operators have indicated that, though they have tried various schedules to encourage more use of the system, bus ridership is still low. It has been noted that many people in the Flathead Valley are not aware of WART and more public education and advertisement may increase its use. WART operates at a lower cost and with a greater percentage of ridership support than similar systems at other ski areas in the country.

The communities of Kalispell and Big Fork also provide 2 and 1 buses on Saturdays, respectively, to the Big Mountain Area. Ridership is not substantial and is mostly coordinated with ski school programs.

Operators and others involved with the bus systems indicate that they feel the demand for bus service and other mass transit will increase in coming years.

Cog Railway or Tramway/Gondola

A cog railway or a tramway/gondola, from the existing railroad station in Whitefish to the Resort, will be at least 5 miles long. It is estimated the cost to construct the facility will be $9 to $12 million, not including right-of-way and terminal/parking facilities at either end. It is estimated that yearly maintenance costs on either facility would be $250,000 to $400,000.

There are no private entities capable of providing financing that have expressed interest in the proposals.

A new right-of-way corridor will be required to construct the tracks or tramway and related facilities. Many of the same environmental concerns will occur as identified for Alternatives A, A-1 or B-1 in Section 4. AFFECTED ENVIRONMENT AND IMPACTS.

Further Evaluation

Mass transit alternatives are not evaluated further in this environmental assessment because:

- They do not meet the purpose and need for the project which is, as explained in Section 2., to provide an improved highway between the City of Whitefish and the Big Mountain Ski and Summer Resort.

- This document evaluates alternatives for improving the Big Mountain Road. Other proposed projects, such as improving bus service or constructing a cog railway or a tramway/gondola, will be more appropriately evaluated and discussed in detail in another study.

- Improvements to the Big Mountain Road will be required with or without the implementation of mass transit alternatives.

3.2.7. Alternative Emergency Access

The Montana Department of State Lands (DSL) has indicated that the Big Mountain area is a high risk area for wildfires which could lead to loss of private property or lives[9]. Of 165 areas evaluated for wildfire risk, the Big Mountain area was ranked highest risk and is one of only 4 areas in DSL's "extreme" classification. The existing roadway, by itself, may be inadequate to provide emergency access or evacuation if a large wildfire occurs.

DSL has indicated that Alternative B-1 will provide an appropriate alternative access, but if A or A-1 is selected, alternative emergency access might be possible by implementing moderate improvements to the existing Haskill Basin logging road system. DSL has suggested that these roads do not need to be open to public travel. They might be barricaded and an innovative approach would be needed to facilitate passage by the public only during an emergency. Stoltz Land and Lumber Company, the major land owner in the area has indicated that this concept is unacceptable -- public access cannot be permitted because of current state water quality laws[10]. DSL has indicated they have advanced this idea without consulting Stoltz Land and Lumber Company management but, would be willing work with them to develop a suitable solution.

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[9]Mike DeGrosky, Kalispell Unit Fire Supervisor, Northwestern Land Office, Montana Department of State Lands, memorandum dated 07 October 1992.

[10]Ronald Buentemeier, Logging Manager, Stoltz Land and Lumber Company, letter dated 22 October 1992.

3.2.8. Power Substation Alignment

Suggestions have been received from the public to remove the existing power substation near Station 65+00 and, if Alternative A or A-1 is constructed, construct the roadway through the area to allow:

- Improved horizontal alignment,
- Reduced roadway embankment at the substation,
- Improved visual quality,
- Allow better opportunity for construction of an intersection for an access road from subdivisions and residential development planned to the east, and
- Removal of other perceived adverse effects of a power substation near planned future residential areas.

This suggestion is not evaluated further in this document because:

- It is feasible and practical to construct horizontal curves that meet design standards without removing the substation,
- Though roadway embankment may be reduced at the substation, roadway excavation will likely increase south of the substation which will result in no significant difference in construction costs,
- It will be expensive to relocate the power substation -- it is estimated that the cost of relocation will be at least $900,000 plus the cost of the additional land required, and
- Similar visual and other impacts that may be occurring with the existing substation will likely also occur in the new location if the substation is moved.

3.2.9. Thirty-Two Foot Wide Roadway

Suggestions have been received from the public to construct a 32 foot wide roadway instead of the proposed 40 foot wide roadway. This alternative is not evaluated in detail in this document because:

- It does not meet current design standards for a roadway of this type with existing and projected traffic volumes and characteristics,
- It will not provide adequate shoulders for pedestrians and bicycles,

- It will not provide adequate shoulders for stalled vehicles or emergency stops along the roadway,

- It does not provide wider shoulders for buses which frequently use the roadway,

- It does not provide the additional margin of safety for errant or out-of-control vehicles that would be provided by a roadway with a wider shoulder,

- It will create only minor reductions in the amount of right-of-way required for construction -- the amount of right-of-way required will be reduced by approximately 5 acres which is approximately a 4% reduction for Alternative A-1, and

- It will not substantially reduce the height of the larger excavation and embankment slopes -- reductions will be generally less that three feet.

3.3. ALTERNATIVE COMPARISON

Following paragraphs summarize and compare beneficial and adverse impacts of Alternatives A, A-1, B-1 and No-Action.

Geometric Design

Maximum vertical grades of Alternatives A, A-1 and B-1 are not expected to exceed 9% as compared with the design standard of 10% maximum (Section 2.1). Average grades and total lengths for each of the proposed alternatives are summarized below:

No-Action Alternative	5.8%	5.2 Miles
Alternative A	5.8%	5.2 Miles
Alternative A-1	6.3%	4.8 Miles
Alternative B-1	5.5%	5.5 Miles

Horizontal curvature and resulting design speeds of the existing roadway and of each of the proposed alternatives are summarized and compared on the table below:

Degree	Radius (Feet)	Design Speed	Existing	A	A-1	B-1
7°30'	765	50				
			4	8	9	4
12°15'	470	40				
			3	6	4	1
22°45'	250	30				
			8	2	0	0
Over 22°45'	< 250	< 30				

As indicated above, the existing alignment (the No-Action Alternative) includes eight horizontal curves with design speeds of less than the 30 mph minimum design speed standard discussed in Section 2.1. Three of these are the lower, middle and upper switchbacks with design speeds less than 20 mph.

With Alternative A, two curves (the middle and the upper switchbacks) will remain with design speeds less than 30 mph.

All horizontal curves on Alternatives A-1 and B-1 will meet the minimum design speed standard. All but 4 curves on Alternative A-1, and all but one curve (near the end of the project on the Big Mountain Resort) on Alternative B-1 will have a design speed of 40 mph or greater.

The following is a summary of estimated construction and right-of-way costs for the proposed project:

	Construction	Right-of-Way	Total
No-Action	n/a	n/a	n/a
Alternative A	$5,200,000	$1,000,000	$6,200,000
Alternative A-1	$4,900,000	$1,080,000	$5,980,000
Alternative B-1	$5,100,000	$ 930,000	$6,030,000

Potential impacts, both beneficial and negative, of each of the proposed alternatives are summarized and compared on Table 3-1. References are also included which indicate sections in this environmental assessment where each item is evaluated in detail.

3.4. PREFERRED ALTERNATIVE

Based on public comment and environmental studies completed to-date the preferred alternative is to construct Alternative A-1.

Table 3-1, Comparison of Alternatives and Impacts

ITEM	ALTERNATIVES				REF-ERENCE
	NO	A	A-1	B-1	
Roadway Geometrics	0	b	0	b	2.1.
Capacity	a	b	b	b	2.2.
Pedestrians/Bicyclists	A	B	0	B	2.4.
Safety	A	b	B	b	2.5.
Emergency Access	A	b	b	B	2.5.
Related Projects	a	b	A	b	2.7.
Social/Economic, During Construction	0	A	A	b	4.1.
Social/Economic, Long Term	a	b	b	b	4.1.
Relocations	0	a	a	a	4.2.
Air Quality	a	b	b	b	4.3.
Noise	a	b	a	a	4.4.
Energy/Commitment of Resources	0	b	a	a	4.5.
Floodplains	0	b	0	a	4.6.
Channel Modifications	0	b	0	b	4.7.
Water Quality	0	0	0	b	4.8.
Wetlands	0	b	0	0	4.9.
Land Use	0	b	a	A	4.10.
Cultural Resources	0	b	a	0	4.11.
Threatened/Endangered Species	0	0	0	a	4.12.
Fish, Wildlife and Plants	0	b	a	A	4.13.
Agricultural Lands	0	a	a	A	4.14.
Right-of-Way	0	b	a	a	4.15.
Construction	0	b	a	b	4.16.
Maintenance	0	0	0	a	4.17.
Visual Quality	0	a	a	b	4.18.
Parks and Recreation	0	0	0	0	4.19.
Hazardous Materials	a	b	b	a	4.20.

A - Substantial Adverse Impacts
a - Minor Adverse Impacts
B - Substantial Beneficial Impacts
b - Minor Beneficial Impacts
0 - No Impacts

The reasons are summarized below:

- Construction of the preferred alternative, as opposed to the No-Action Alternative, will result in a highway that meets current design standards (Section 2.1.) and will thereby satisfy the purpose and need for the project and provide a significant improvement in safety, efficiency, level of service and convenience.

- It will provide a better roadway for accommodating buses, carpooling and other forms of mass transit (Section 3.2.6.). Funding for and increased use of public transportation should continued to be pursued and encouraged.

- If Alternative A-1 is constructed, it will provide a wider, safer and higher capacity roadway which will improve access to and from the Big Mountain area for emergency evacuation and emergency response teams and equipment in the case of wildfires or other emergencies. Alternative A-1 will not provide an additional access to the area. It may be desirable, with alternative A-1, to improve existing logging and other parallel road systems, as suggested by the Montana Department of State Lands (Section 3.2.7.), to provide alternate emergency access.

- Alternative A-1 will improve the capacity of the roadway and accommodate existing and projected traffic demand through the design year, 2014 (Section 2.2).

- Alternative A-1 will provide a wider highway with 8 foot wide shoulders to better accommodate pedestrians and bicyclists (Section 2.3.).

- Alternative A-1 will improve the safety of the existing highway (Section 2.4.)

- This alternative will improve driving efficiency on the roadway which will reduce air pollution and decrease energy use (Section 4.3. and 4.5.).

- No floodplains will be affected and no channel modifications will be required (Sections 4.6. and 4.7).

- This alternative will not affect the watersheds that are currently used or planned to be used by the City of Whitefish for public water supply (Section 4.8.).

- This alternative will include only 1.2 miles of new highway alignment, as opposed to 4.3 miles if Alternative B-1 is constructed. Impacts resulting from increased development and other land use changes that might occur if highway traffic and access is introduced to relatively undeveloped areas will be less. It will not introduce highway traffic to an area that is currently considered to be an important, relatively undeveloped, natural area, readily accessible to area residents, as will Alternative B-1 (Section 4.10.).

- It has been determined that Alternative A-1 will have no effect or is not likely to adversely affect any threatened or endangered species (Section 4.12.). The U.S. Fish and Wildlife Service has concurred that Alternative A-1 will have no effect on the gray wolf and the peregrine falcon and that Alternative A-1 is not likely to adversely affect the bald eagle and the grizzly. The U.S. Fish and Wildlife Service has indicated that, pursuant to S402.13(a) of 50 CFR, formal consultation is not required with Alternative A-1.[11]

- This alternative should have no impact on fisheries and will affect fewer acres of wildlife habitat (Section 4.13.).

- Alternative A-1 will not require the conversion of any productive timber lands to highway right-of-way (Section 4.14.).

- This alternative, because it creates fewer miles of new roadway, will have lower maintenance costs than Alternative B-1 (Section 4.17.).

- This alternative will not introduce highway traffic, and potential impacts from hazardous material spills, to new areas with streams or other water bodies (Section 4.20).

- More public comment has been received in favor of Alternative A-1 than any of the other alternatives (Section 5.).

- The Flathead County Board of Commissioners, meeting in regular session on December 2, 1992, selected Alternative A-1 as the preferred alternative for the proposed Big Mountain Road Project.

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[11]McMaster, Kemper, M., Field Supervisor, Montana Field Office, Fish and Wildlife Service, U.S. Department of the Interior, letter dated 10 December 1993.

4. AFFECTED ENVIRONMENT AND IMPACTS

The following sections discuss existing conditions and potential impacts of the proposed project. Where adverse impacts may occur, appropriate mitigation measures are discussed.

4.1. SOCIAL AND ECONOMIC

4.1.1. Existing Conditions

The City of Whitefish and Big Mountain are major resort and recreation areas. Glacier National Park and Flathead Lake are other nearby major travel and tourism destinations in northwestern Montana.

During the period 1970-1990, Whitefish's population increased by 30% and Kalispell, the largest city in the Flathead Valley, increased in population by 13% (Refer to table below).

The population of Flathead County grew by 50%, since 1970, the highest rate of growth of any county in Montana. The state of Montana's population increased by 15% and an eight-county area of western Montana increased by 37% (Refer to table below).

Total Population 1970-1990

Location	1970	1980	1990
Flathead County	39,460	51,970	59,220
Whitefish Area (1)	NA	NA	9,490
City of Whitefish	3,350	3,700	4,370
City of Kalispell	10,530	10,650	11,920
Western Montana (2)	157,430	202,330	215,969
Montana	694,410	786,690	799,065

SOURCE: U.S. Department of Commerce, Bureau of the Census; Census of Population; 1970-1989.

NOTES: NA means not available.

(1) Whitefish area is the 1990 Whitefish census county subdivision; it contains the geographic area adjacent to and including the City of Whitefish.

(2) Western Montana includes Flathead, Lake, Sanders, Missoula, Lincoln, Mineral, Ravalli, and Granite counties.

The racial composition of the population for the study area did not change between 1980 and 1990. The populations of Flathead County, the Whitefish area, and the City of Whitefish are 98% white, one percent American Indian, and one percent black and other. (Refer to table

below). There are no known concentrations of racial or ethnic groups that will be affected by the proposed project.

Racial Characteristics 1980-1990

Location	White	Black	American Indian	Other
Flathead County				
1980	51,090	40	550	290
1990	57,900	60	880	380
Whitefish Area				
1980	NA	NA	NA	NA
1990	9,340	10	80	60
City of Whitefish				
1980	3,630	NA	20	50
1990	4,280	10	50	30

SOURCE: U.S. Department of Commerce, Bureau of the Census; Census of Population; 1980-1989.

NA means not available.

Flathead County is a center for lumber and wood products and recreation industries. Total employment in the county increased by 103% during the period 1970-1990. Services (25%), wholesale and retail trade (23%), manufacturing (13%), and government (13%) provide 74% of employment in Flathead County. (Refer to table below.)

Employment By Industry - Flathead County 1970-1990

Industry	1970	1980	1989
Farm	730	1,000	1,060
Agriculture, Forestry and Fisheries Services	150	270	520
Mining and Construction	710	1,640	2,050
Manufacturing	3,330	4,070	3,990
Transportation and Public Utilities	1,320	1,910	1,740
Industry	1970	1980	1989
Wholesale and Retail Trade	3,310	5,470	7,150
Finance, Insurance and Real Estate	730	1,610	2,490
Services	2,380	4,810	7,760
Government	2,450	3,530	3,930
TOTAL:	15,110	24,310	30,690

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis; Regional Economic Information System; 1970 - 1989.
NOTE: Numbers have been rounded to the nearest ten.

The Big Mountain Ski and Summer Resort employs up to approximately 400 full time employees during the ski season. It is estimated that annual payroll at the Resort is approximately 8.6 million per year or approximately 1.4% of the Flathead County total annual payroll of $610 million.

Tourism is an important part of the economic base of Flathead County and the ski industry draws a significant portion of visits to the county. There were approximately 280,000 skier visits to the Big Mountain in 1992 which is approximately 10% of the estimated 2,700,000 million total visitors to Flathead County.

Skiers contribute an even higher portion of tourism spending in the county -- it is estimated that approximately 25% of spending by visitors in the county is by skiers.

4.1.2. Potential Impacts

As indicated in Section 2.2. TRAFFIC VOLUMES AND CAPACITY, traffic volumes between Whitefish and Big Mountain are increasing and are expected to continue to increase.

The No-Build Alternative will not improve the transportation system. It will not satisfy demand from the increasing population for improved levels of service, convenience, travel time, operational expenses and accessibility to community services and commercial areas.

Alternatives A, A-1 and B-1 will provide a transportation system that improves levels of service, convenience, travel time, operational expense and accessibility to community services and commercial areas.

Improvement to the transportation system could increase the potential for development of residential and commercial property. There would be increased opportunity to experience the area's aesthetic and recreation amenities. An improved transportation system would provide access to employment opportunities at Whitefish and Big Mountain.

As discussed in 4.16 CONSTRUCTION, traffic will be maintained through the project area during construction but, in areas where the new roadway will be constructed on or near the existing alignment, substantial inconvenience to highway users will result. Flagging, pilot cars, detours and temporary surfacing will be required. These delays and inconvenience may have a negative impact, mainly during one construction season (approximately May to October), on area commercial establishments that depend on summer visitors. As indicated in Section 4.16. CONSTRUCTION, Alternatives A and A-1 will have the greatest effect because they will involve construction on the existing roadway for most of the project length. Alternative B-1 will have less effect because only about one-fourth of its length will be constructed on or near the existing roadway.

4.1.3. Mitigation Measures

Inconvenience and delays during construction will be controlled and reduced, as much as practical, through the implementation of a traffic control plan and other measures as described in Section 4.15. CONSTRUCTION.

4.2. RELOCATION

4.2.1. Existing Conditions

Most of the homes and other structures that might be affected by the proposed project are located on the first one mile, from the beginning of the project to the power substation. All of the proposed alternatives follow the same alignment in this area.

4.2.2. Potential Impacts

The following structure will require relocation if Alternative A, A-1 or B-1 is constructed:

STATION	DESCRIPTION
10+50, Right	House

The following structures are outside of, but very close to, the proposed new right-of-way lines for Alternative A, A-1 or B-1. New roadway embankments or excavation will be very close to them and, depending on final design requirements, substantial revisions to approaches, landscaping, water or septic systems will be required. It is possible that relocation of some of these structures may be required.

STATION	DESCRIPTION
14+00, Right	House
16+00, Right	Trailer House
26+00, Right	House
48+00, Right	Garage
52+00, Left	House
60+00, Left	House
67+00, Right	Power Sub-Station Fence

No relocations of residences, businesses or any other structures will be required with the No-Action Alternative.

4.2.3. Mitigation Measures

The Montana Department of Transportation has a relocation assistance program whereby supplemental housing payments, moving costs, advisory assistance and other services are offered

to individuals displaced by a highway construction project. The payments for relocation are offered in addition to the amount of just compensation for the right-of-way requirements.

It is the policy of the Montana Department of Transportation that no person shall be displaced by the construction of any federally aided highway project unless and until adequate replacement housing has been provided. All replacement housing offered will be fair housing, open to all persons regardless of race, color, religion, sex or national origin.

No special problems with relocation or replacement housing have been identified.

4.3. AIR QUALITY

4.3.1. Existing Conditions

The existing steep and variable grades, sharp horizontal curves and narrow roadway width contribute to reductions in the driving comfort and efficiency of the existing roadway. Frequent accelerations and decelerations are required. As a result, greater carbon monoxide (CO) emissions occur from motor vehicles.

The existing roadway is paved with asphalt so dust pollution is not a problem during most times of the year. Most dust pollution (PM-10) occurs for short periods in the spring after the last snow has fallen and roadway sanding materials, not yet removed from the roadway, begin to dry out. Dust pollution also occurs during other seasons of the year whenever vehicles travel on unpaved shoulders and other areas adjacent to the roadway.

In February and March of 1992, the City of Whitefish had eight exceedances of the 24-hour PM-10 National Ambient Air Quality Standard (NAAQS). As a result, the City of Whitefish was designated as nonattainment for PM-10 on October 19, 1993. Approximately the southern one-third of the proposed project (Alternatives A, A-1 and B-1) lies within the boundary of the designated nonattainment area.

4.3.2. Potential Impacts

Long-term impacts of Alternative A, A-1 or B-1 will be beneficial. Projected growth in traffic volumes are expected to occur with or without roadway improvements. The State Air Quality Bureau (AQB) has indicated[12] that:

> "In general, any project which will smooth out the traffic flow, and reduce stopping and idling time will also reduce the amount of air pollution emissions from transportation sources. The Flathead valley has two non attainment areas for fine particulates. The major sources of these particulates are re-entrained road dust and residential wood stove emissions. Since this road surface is to be paved, the Air Quality Bureau has determined that there will be no significant impact on the attainment of the Montana air quality standards from this project."

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[12]Warren Norton, Environmental Specialist, Air Quality Bureau, Montana Department of Health and Environmental Sciences, letter dated 10 January 1992.

Because the proposed project will smooth out the traffic flow and allow more efficient vehicle operation, it is likely to result in reduced CO and other motor vehicle related emissions.

Alternative B-1 will create more roadway length (in addition to the existing roadway which will remain) with more areas where air pollution from dust resulting from winter sanding operations can occur. This is offset by the substantial reductions in traffic volumes, and resulting decrease in the potential for dust pollution, that will occur on the existing roadway.

Alternative A-1 will be shorter than the existing roadway (4.8 miles long as compared with the existing 5.2 mile long roadway) which will result in less sanding requirements and PM-10 emissions.

No additional traffic lanes will be constructed with any of the proposed alternatives. The roadway will be paved with asphalt, including the proposed 8 foot wide shoulders (existing shoulders are not paved). All public and private vehicle approaches to the roadway will also be paved to the highway right-of-way line. These features are also likely to result in a decrease in PM-10 emissions.

An important part of the proposed project is to provide wider shoulders, improved grades and improved horizontal curves for buses, bicyclists and pedestrians. This will encourage more use of these transportation modes which will further reduce air quality emissions.

The proposed roadway reconstruction project is not expected to cause an increase in traffic volumes on the Big Mountain Road or in the City of Whitefish.

Short term air quality impacts, including dust and emissions from asphalt plants and crushers, are expected to occur during construction if Alternative A, A-1 or B-1 is selected. These impacts will be temporary and will not be significant.

The AQB has concurred[13] that the subject project is exempt from the requirement that an air quality conformity determination be made because the project will include:

- Shoulder improvements,
- Improvements designed to increase sight distance and safety,
- Pavement rehabilitation,
- Truck climbing lanes where appropriate and practical, and
- Widening of narrow pavements with no additional traffic lanes.

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[13]Bennitt, Gretchen, Air Quality Specialist, Air Quality Bureau, Montana Department of Health and Environmental Sciences, letter dated 10 February 1994.

All of these activities are included in Table 2 (a list of projects that are exempt from the requirement that a conformity determination be made) of Paragraph 93.134 of 40 CFR Parts 51 and 93, Criteria and Procedures for Determining Conformity to State Implementation Plans, Programs and Projects Funded or Approved under Title 23, U.S.C. of the Federal Transit Act, Environmental Protection Agency (EPA), Final Rule.

If the No-Action Alternative is selected, no reduction in transportation related air quality emissions will occur. Short term construction related impacts will also not occur.

This proposed project is located in an "unclassifiable"/attainment area of Montana for air quality under 40 CFR 81.327. As this type of project has no adverse impact on regional emissions according to the June 7, 1991 USDoT and EPA Interim Guidance for the Clean Air Act Amendments -- Section 6.2 and the Appendix -- a carbon monoxide (CO) analysis will not be necessary. Therefore, this proposed project complies with the 1990 Clean Air Act Amendments (23 U.S.C. 176 (c)) during "Phase I" of the "Interim Period".

4.3.3. Mitigation Measures

Applicable requirements of the Montana Department of Transportation, Standard Specifications[14], will be followed to help reduce or eliminate dust and other air pollution during construction (Section 4.16 CONSTRUCTION). These specifications require adherence to all federal, state and local air quality regulations and permit requirements and set forth guidelines for asphalt plants, earthwork operations and other construction activities to help minimize air quality impacts.

In order to reduce the emissions of PM-10, the following will be implemented during the construction phase of the project as suggested by the Air Quality Bureau[15]:

- Daily sweeping on both ends of the project or other paved access roads during construction. This will reduce the major carry-on of dirt from the project onto the paved roads within the nonattainment boundaries.

- If detours are not paved, they will be watered or chemically stabilized so that the emissions are less than 5% opacity.

- Any slash being burned due to right-of-way clearing will be stacked with a brush blade and cured. Open burning restrictions will be observed and a major open burning permit will be acquired from Flathead County when appropriate.

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[14]Montana Department of Highways, Standard Specifications for Road and Bridge Construction, 1987 Edition, 01 January 1987.

[15]Bennitt, Air Quality Bureau, Montana Department of Health and Environmental Sciences, memorandum dated 22 April 1993.

- An air quality permit will be obtained from the Air Quality Bureau of the Montana Department of Health and Environmental Sciences to operate gravel crushers and asphalt plants.

4.4. NOISE

4.4.1. Existing Conditions

Existing activities and land uses in the project area which may be affected by noise from the existing and proposed highway include existing residences, the USFS Holbrook Overlook/Picnic Area, the Big Mountain Ski and Summer Resort and undeveloped forested areas. Existing residences include several homes located along the existing alignment, mainly along the first one mile of Alternatives A, A-1 and B-1 and the Ptarmigan Village Subdivision. Planned residential areas include the proposed Kinnikinnik residential and golf course development.

A noise analysis has been completed for the proposed project. The following four study sites were assessed:

Site	Station	Alternative	Description
#1	25+00, 65' Rt.	A, A-1, B-1	Residence
#2	132+00, 100' Lt.	B-1	Undeveloped
#3	221+00, 160' Rt.	A	Holbrook Picnic Area
	198+00, 160' Lt.	A-1	
#4	159+00, 150' Rt.	A	Ptarmigan Village
	160+00, 300' Rt.	A-1	

The locations of these sites are illustrated on Figure 3-1.

4.4.2. Potential Impacts

The following is a summary of existing and projected noise levels, for each of the proposed alternatives, expressed in decibels, Leq(h) dBA:

Site	1990 Existing Conditions	2014 Alternative A**	2014 Alternative A-1	2014 Alternative B-1
#1	60	65	65	65
#2	46	46	46	61
#3	51	57	57	<51
#4	52	57	51	<51

** Noise impacts of the No-Action Alternative are estimated to be approximately the same as the impacts of Alternative A.

23 CFR, Part 772 defines noise impacts as occurring when:

1. *The Noise Abatement Criteria (NAC) threshold level is approached (within 1 dBA) or exceeded. The exterior noise abatement threshold for NAC Category B is Leq(h)=67 dBA. Category B includes picnic areas, residences, schools, churches and public meeting facilities and generally applies to the proposed Big Mountain Road Project.*

2. *The noise levels resulting from a proposed project substantially exceed (by 10 dBA or greater) the existing noise levels.*

The NAC threshold level will not be approached or exceeded with any of the proposed alternatives at any of the analysis sites.

Noise levels are not expected to increase by 10 dBA or greater at any of the sites with any of the proposed alternatives, except at Site #2.

At Site #2, 100 feet from the proposed Alternative B-1, existing noise levels will be exceeded by approximately 15 dBA (from 46 dBA to 61 dBA), a substantial increase as defined above. In general, noise level increases of 10 dBA or more are expected to occur in all similar areas, where the roadway will be constructed on new alignment, on Alternatives A-1 and B-1 within 200 feet of the proposed roadway centerline. There are no established picnic areas, residences, schools, churches or public meeting facilities located in these areas.

If the No-Action Alternative is selected, noise levels will not change in the short term. Noise levels are expected to increase in future years as traffic volumes increase.

4.4.3. Mitigation Measures

Since a substantial increase in noise levels may occur in existing undeveloped areas along Alternatives A-1 and B-1, noise abatement measures listed in Section 8.c of FHPM 7-7-3 have been considered, including the following:

1. *Traffic management measures (e.g., traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits and exclusive lane designations).*

   These types of noise abatement measures are not considered reasonable and feasible because 1) they will not provide a significant improvement and 2) they are not appropriate for this highway and its historic and projected uses.

2. *Construction of noise barriers within or outside the highway right-of-way.*

   There are no existing noise receptors that will benefit from the construction of noise barriers, however, any future developments should consider location and design of

residences and other potentially sensitive receptors to utilize existing or new timber stands as noise barriers.

3. *Noise insulation of public use or nonprofit institutional structures.*

There are no existing noise receptors that will benefit from this type of abatement measure. This type of measure might be considered should development of any such buildings be planned.

In an effort to prevent future traffic noise impacts on currently undeveloped lands, information contained in this document is being furnished to local governments and planning officials in the project area. These officials may consider land use plans, restrictions or regulations that discourage or prevent further development of incompatible activities. They may also require new structures and other facilities to be located and constructed to avoid future noise impacts. Consideration may also be given to encourage or require future developments, where noise impacts are expected, to provide noise barriers or other abatement measures.

4.5. ENERGY AND COMMITMENT OF RESOURCES

4.5.1. Existing Conditions

The steep and variable grades, sharp horizontal curves and narrow roadway width contribute to reductions in the driving comfort and efficiency of the existing roadway. These features require frequent accelerations and decelerations and reduced energy efficiency.

4.5.2. Potential Impacts

Construction of any of the proposed alternatives will improve traffic operations and efficiency by providing better alignments, wider roadway and more roadway capacity. This improvement in efficiency and traffic operations will result in fuel savings and a decrease in vehicle wear. The long-term effect of the project should therefore be a decrease in energy use.

Implementation of the proposed action involves a commitment of a range of natural, physical, human and fiscal resources. Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion will ever be necessary or desirable.

Considerable amounts of fossil fuels, labor and highway construction materials such as cement, aggregate and bituminous material will be expended. Additionally, large amounts of labor and natural resources will be used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use will not have an adverse effect upon continued availability of these resources.

The commitment of these resources is based on the concept that residents in the immediate area, State and region will benefit by the improved quality of the transportation system. These benefits will consist of improved accessibility and safety, savings in time and greater availability of quality services which are anticipated to outweigh the commitment of these resources.

The No-Action Alternative will not improve highway operation and efficiency and will therefore provide no long-term decrease in energy use. The No-Action Alternative will require no commitment of resources.

4.6. FLOODPLAIN

4.6.1. Existing Conditions

The Corps of Engineers has indicated that the design of the project should ensure that the 100-year flood water surface elevation of any stream affected is not increased more than one foot relative (no increase would be desirable) to pre-project conditions.

Flathead County is a participant in the National Flood Insurance Program. The appropriate Flood Insurance Rate Map[16] has been reviewed and it has been determined that there are no flood plains in the project area that have been delineated by the program.

Alternative A and A-1 cross no streams. Alternative B-1 will include crossing of the floodplains (not delineated by the National Flood Insurance Program) of minor drainages as discussed in Section 4.7. CHANNEL MODIFICATIONS.

4.6.2. Potential Impacts

Construction of stream crossings, without proper design and construction, may increase flood elevations in some areas if Alternative B-1 is constructed.

The No-Action Alternative will have no impact on floodplains in the project area.

4.6.3. Mitigation Measures

The project will be designed and constructed to ensure that flood water surface elevation will not be increased more that one foot if Alternative B-1 is constructed.

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[16]Federal Emergency Management Agency, Flood Insurance Rate Map, Flathead County, Montana, Panel 1080 of 3425, effective date 05 September 1984.

4.7. CHANNEL MODIFICATIONS

4.7.1. Existing Conditions

No existing stream channels will be affected by Alternative A, A-1 or the No-Build Alternative.

As shown on Figure 3-1, Alternative B-1 will cross Haskill Creek near Station 165+00 and will cross four smaller streams, including First Creek, near the end of the project.

The channels of these streams at the proposed crossings and in the project area are small and no fisheries values have been identified.

4.7.2. Potential Impacts

Minor work in the channels will be required to install culverts and inlet/outlet structures if Alternative B-1 is constructed. Construction work in the channel will be of short duration. Some sediment may enter the stream during or shortly after construction. With Alternative B-1, small amounts of sediment from winter sanding operations will be carried into the stream at these crossings.

The No-Action Alternative will require no channel modifications and will have no impact on streams.

4.7.3. Mitigation Measures

Pipe culvert crossing structures will be designed to, as much as possible, conform to the flowline and alignment of the existing stream.

An erosion control plan will be developed and implemented, with any of the proposed alternatives, as described in Section 4.8.

4.8. WATER QUALITY

4.8.1. Existing Conditions

As indicated on Figure 3-1, the First Creek Watershed is located in the project area. The City of Whitefish holds water rights in the First Creek Water Shed, but is currently not using it. It is important to the City, however, that this watershed be protected for possible use in the future, if needed. Most of the existing buildings and other development at the Big Mountain Resort currently lie within this watershed.

The Second Creek Watershed is important because it currently serves as part of the City's water supply. Water enters the system at the Second Creek Intake and is carried to the water storage reservoir via the existing water supply pipeline.

All of the above facilities, except for the First Creek Watershed, currently are on private property, behind locked gates, with little public access.

4.8.2. Potential Impacts

The City of Whitefish[17] and others have expressed concern over the relationship, and potential impacts, of the project on the City's existing watersheds, water supply intakes, water transmission pipeline and water storage reservoir.

Alternative A, A-1 and the No-Build Alternative will have no impact on the City of Whitefish Water Supply System. Except for approximately 0.6 miles at the north end near the Big Mountain Resort, Alternatives A, A-1 and the No-Action Alternative lie outside the First and Second Creek Watersheds. The 0.6 miles of Alternative A or A-1 lying within the First Creek Watershed will closely follow the existing alignment.

Approximately 2.6 miles of Alternative B-1 will pass through a portion of the existing First Creek Watershed. The alignment will also pass within 200 feet of the southwestern boundary of the Second Creek Watershed, as shown on Figure 3-1, but will not enter it. Alternative B-1 will cross the existing water transmission pipeline two times. The alignment will pass within approximately 600 feet of the existing 2nd Creek Water Supply Intake. Portions of the proposed alignment for Alternative B-1 lie within the same drainage basin as the existing open water storage reservoir.

Alternative B-1 may have the following impacts on the City of Whitefish Water Supply System:

- Since the proposed alignment will pass near the Second Creek Watershed and within a few hundred feet of the Second Creek Water Supply Intake, Alternative B-1 could lead to increased problems with increased human activity near and within the watershed that may be harmful to water quality including increased vandalism to water intake equipment.

- Since the proposed alignment will cross the water transmission line two times, the potential exists for interruption of the water supply during construction.

- Since the proposed alignment passes through the First Creek Watershed, the potential exists for limiting future development and use of the watershed.

- Increased traffic in the area of the watersheds and related human activity will increase the potential for forest fires and resulting damage to the watersheds.

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[17]Greg Acton, Utilities Supervisor, City of Whitefish, letter dated 16 January 1991.

- Increased traffic in the area of the watersheds will increase the potential for gasoline, oil or other hazardous material spills with resulting damage to the watersheds.

- Construction of the proposed Alternative B-1 will significantly improve access to the area for maintenance crews, fire fighters and emergency crews which will help protect the natural vegetation when wild fires occur.

The existing natural forest and vegetation will provide important filtering and water treatment. Alternatives A and A-1, if constructed, will be located more than 1,500 feet from the Haskill Creek and Alternative B-1, if constructed, will be located at least 200 to 300 feet from the stream. These distances are adequate to allow this natural treatment to operate. In some cases, sedimentation basins may be desirable to capture sediment or other detrimental materials before reaching the creek. Alternative A or A-1 should create no increase in water turbidity or sediment yield to any streams, lakes, wetlands or other water bodies. Alternative may B-1 create slight increases but, if mitigation measures listed below are implemented, they will not be significant.

4.8.3. Mitigation Measures

Fencing of the roadway may be desirable to separate highway traffic, including vehicles, bicycles and pedestrians from the Second Creek Water Supply Intake.

Special zoning should be considered to preclude development along or near the proposed Alternative B-1 that might be harmful to the watersheds.

Conservation easements, as discussed in 4.10. LAND USE, may help control development and other activities that may be potentially harmful to the watersheds.

Where the proposed Alternative B-1 alignment crosses the existing Water Transmission Pipeline, protective structures or sleeves will be required to protect the pipeline from expected traffic loads. During construction, bypass pipelines or other alternate water supplies will be required to avoid interruption of the water supply.

Drainage from the roadway will be captured in borrow ditches and small pipe culverts will be provided frequently to allow small discharges across the roadway and, wherever possible, into natural drainages and swales. This will help keep discharges small and erosion low and make the maximum use of natural vegetation for treatment. Small, low-maintenance sediment traps or basins may be desirable in combination with the pipe culvert crossings.

The new roadway, following construction, will be re-topsoiled and re-seeded with plants native and suitable to the area. Where erosion may occur, mulch or protective mats will be used to secure the seed and topsoil until it is well established. Noxious weed control will be an important concern, particularly until the new seed is established.

The Montana Pollutant Discharge Elimination System (MPDES) regulations (ARM 16.20.1314) require a storm water discharge permit for any construction activity in which clearing, grading and excavating will result in the disturbance of greater than five acres total or the disturbance of greater than one acre if located within 100 feet of a surface water body (stream, river or lake). The permit will, therefore, apply to all of the proposed alternatives except No-Action. As part of the permit application process, a Storm Water Erosion Control Plan must be designed and approved by the Water Quality Bureau of the Montana Department of Health and Environmental Sciences (MDHES/WQB) prior to construction taking place. The objective of the plan is to minimize erosion of disturbed areas during the construction and post construction phase of a project. Careful planning and proper implementation of the plan will lessen the likelihood of pollutants reaching state waters. The plan will become part of the construction plans, specifications and documents. Construction contractors will be required to adhere to it.

A plan for runon control for hazardous materials at construction sites is also necessary and will be coordinated with and approved by the MDHES/WQB.

The MDT Standard Erosion Control Work Plan[18] will be used as a guide to prepare a specific work plan for the proposed project. The standard plan incorporates seven major principles of soil erosion and sedimentation control which will be implemented as follows:

Plan the Development to Fit the Site
Detailed designing will be completed to assure that roadways, structures and other permanent features of the proposed project conform to the natural characteristics of the site. Areas with steep slopes, erodible soils and soils with severe limitations will have planned erosion controls to overcome these limitations. For instance, long steep slopes will be broken by benching, terracing, or constructing diversion structures.

Minimize Extent of Disturbed Areas and Duration of Exposure
When earth moving activities require the removal of vegetation, the area and the duration of the exposure will be kept to a minimum. Phases or stages of development will be planned so that only the areas which are actively being developed are exposed. Grading will be completed as soon as possible after it is started. When construction is complete, permanent vegetative cover will be established in the area. As cut slopes are made and as fill slopes are brought up to grade, these areas will be revegetated as the work progresses.

Stabilize and Protect Disturbed Areas as Soon as Possible
Disturbed areas will be stabilized as soon as possible using methods appropriate at each site including dikes and swales; roughening, stair stepping and terracing of slopes; mulching; seeding; sodding; erosion control blankets; retaining walls; slope drains; vegetative buffer strips; straw bale barriers; gravel filter berms; silt fences; dugout ditch basins; settling basins; sediment traps and stream bank protection.

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[18]Pioneer Technical Services, Inc. for Montana Department of Transportation, Highway Construction Standard Erosion Control Work Plan, 30 September 1992.

Keep Runoff Velocities Low

The removal of existing vegetative cover and the resulting increase in impermeable surface area during construction will increase both the volume and velocity of runoff. These increases will be taken into account when providing for erosion control. Slope changes will be designed to keep slope length and gradient to a minimum. Short slopes, low gradients, and the preservation of natural vegetative cover will keep runoff velocities low. This will limit erosion hazards and reduce costs associated with erosion control.

Protect Disturbed Areas from Runoff

Measures to prevent off-site water from entering and running over the disturbed areas will be implemented. Slope and disturbed ground protection measures will be favorable over trying to remove sediment from runoff waters after erosion has occurred.

Retain Sediment within the Corridor Area

Sediment will be retained by two methods: (1) by filtering runoff as it flows and (2) by detaining sediment-laden runoff for a period of time so that soil particles settle out. The best way to control sediment, however, is to prevent erosion.

Implement a Thorough Maintenance and Follow-up Program

The plan will include a thorough maintenance and monitoring plan to ensure that erosion control measures are functioning properly and, where needed, adjustments or improvements are made.

The erosion control work plan will also apply to and be developed for all required borrow sites.

By implementing the mitigation measures described above and due to the location of the streams in relation to the proposed alternatives and due to the significant amount of natural filtration existing, it is estimated that none of the proposed alternatives will produce significant amounts of sedimentation in existing streams.

4.9. WETLANDS

4.9.1. Existing Conditions

A wetland survey has been completed in accordance with the evaluation process developed by the U.S. Army Corps of Engineers and adopted by the Montana Department of Transportation and the Montana Interagency Wetlands Group (IWG). No wetlands have been identified that will be affected by this project.

4.10. LAND USE

4.10.1. Existing Conditions

Property owned by Winter Sports, Inc., as shown on Figure 3-1, comprises the Big Mountain Zoning District. This district is zoned BR-4 which is intended for resort purposes and to provide for the development of medium and high density resort uses, including hotels, motels, resort condominiums and other similar uses oriented towards tourism and resort businesses.

No other zoning is in place in the project area.

The following is a summary of land use recommendations from the Whitefish City-County Master Plan[19]:

For all Alternatives:

Approximate Station		Land Use
10+00 to	20+00	Resort Residential
20+00 to	65+00	Suburban Residential

The plan designates land at the Big Mountain Resort as Resort/Commercial.

The Kinnikinnik development, as shown on Figure 3-1, is designated in the master plan as part of the Kinnikinnik Neighborhood Plan. The goal of this plan is "the creation of a high quality resort, recreation and residential housing development that will utilize lands that are not prime agricultural areas in providing scenic vistas and natural settings in conjunction with recreation amenities that will conform to and blend with the natural topography and environment of the area".

Remaining portions of all alternatives lie in areas with no land use designation in the plan.

U.S. Forest Service lands that will be affected by Alternatives A and A-1 (Section 4.15 RIGHT-OF-WAY) are in Management Area 20[20]. This management area includes Big Mountain Winter and Summer Resort and other areas designated to be used to provide opportunities for Big Mountain expansion. The Tally Lake Ranger District manages the area. Goals of the management area are to continue management as a winter sports area under a Big Mountain Resort Area Master Plan as approved by the Forest Supervisor.

4.10.2. Potential Impacts

All of the proposed alternatives are compatible with requirements of the above described land use zones and forest management areas.

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[19]Flathead Regional Development Office, Whitefish City-County Master Plan, adopted by City of Whitefish, 07 December 1987 and by Flathead County, 18 November 1987.

[20]United States Department of Agriculture, Forest Service, Flathead National Forest, Forest Plan Flathead National Forest, December 1985.

4.10.2.1. Development

Alternative A-1 will include approximately 1.2 miles of roadway construction on undeveloped lands with no existing public roadways and Alternative B-1 will include approximately 3.0 miles. It is expected that, in these areas, increased pressure will occur to develop lands adjacent to and near the new roadway. Some landowners, who have purchased land in these areas with the intent to construct secluded, private residential homes, have indicated that constructing a roadway in these areas may diminish the potential for that use.

The Montana Department of State Lands (DSL)[21] has indicated that the Big Mountain area is a high risk area for wildfires which could lead to loss of private property and lives. Of 165 areas evaluated for wildfire risk, the Big Mountain area was ranked highest risk and is one of only 4 areas in DSL's "extreme" classification. Additional development may increase the potential for fires starting and, if they do start, will increase the potential for damage to humans, property, watershed, wildlife habitat, visual resources, timber and other resources.

With increased development, the demand for additional sewage treatment facilities and water supply systems will increase.

Several participants at public scoping meetings indicated they consider the Haskill Basin area to be one of last undeveloped, natural and wilderness-like areas that is easily accessible to residents of the City of Whitefish. The highway and possible resulting residential and other development will diminish these values.

The Flathead Regional Development Office has indicated that the "extension of a new road alignment into otherwise undeveloped private lands greatly enhances the potential for additional development along such an alignment should one be chosen. Efforts must be made to coordinate or address any potential development including subdivision activity, driveway approaches and larger access points. In addition, the merits of allowing development to occur in these areas and the impacts of such development upon the surrounding area should be weighed".[22]

The No-Action Alternative will not introduce highway traffic to currently undeveloped areas and will not encourage development.

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[21]Mike DeGrosky, Kalispell Unit Fire Supervisor, Northwestern Land Office, Montana Department of State Lands, memorandum dated 07 October 1992.

[22]Stephen F. Herbaly, Planning Director, Flathead Regional Development Office, letter dated 26 March 1991.

4.10.2.2. Access

The number of driveways and intersections with the proposed new roadway will be reduced if limited access control is implemented. With limited access control:

- Vehicle approaches to the roadway that are no longer needed or that can be suitably replaced via another roadway will be eliminated.

- Where two or more approaches are located close together, they will be consolidated into one approach, if practical.

- Existing approaches that are necessary and cannot be replaced will be perpetuated.

- Future approaches to the roadway will not be allowed.

Since Alternative A will closely follow the existing alignment, intersections with existing public roadways will be similar to existing conditions.

As indicated previously, Alternative A-1 will include the construction of a roadway on new highway alignment. In this area, the existing roadway will remain to provide access to adjacent land. Intersections with the existing roadway will be constructed at or near the following locations:

- To provide access to Ptarmigan Village, an intersection can be constructed near Station 153+00 to the existing roadway, and

- To provide access to residences and property near the upper switchback, an intersection can be constructed near Station 202+00 (just above the Holbrook Picnic Area) to the existing roadway.

An intersection will be required near Station 70+00, if Alternative B-1 is constructed, to connect with the existing roadway to provide access to residences and property located along the existing roadway north of the power substation.

Roadways approaching the Big Mountain Road at the intersections described above for Alternatives A-1 and B-1 will include the following features:

- Within 75 feet of the Big Mountain Road, grades will be 3% or less,

- Within 75 feet of the Big Mountain Road, the roadway will be straight and the angle of intersection will be within 30° of perpendicular,

- Horizontal curves to connect to existing roadways outside 75 feet will have radii of 100 feet or greater, and

- Grades outside 75 feet will be 10% or less.

The No-Action Alternative will have no impact on land use or on existing access to adjacent lands. No revisions to existing intersections or approaches will occur.

Public and agency comment has indicated that the proposed Kinnikinnik Resort and other nearby planned residential developments located east of the roadway have proposed the construction of an intersection to the Big Mountain Road near the power substation. With any of the proposed alternatives, grades on the Big Mountain Road in this area are approximately 8% which is steeper than desirable for an intersection area. If this intersection is constructed, protected left-turn lanes, separate acceleration lanes for vehicles turning uphill and other special design features should be considered. Consideration should also be given to instead locating the intersection approximately one-half mile to the south where grades on the Big Mountain Road, with any of the proposed alternatives, will be 4% or less.

4.10.3. Mitigation Measures

To help control this potential development and related impacts, the following measures should be considered:

- Extend zoning and include ordinances that prohibit development that will have a negative effect on the environment, or that may have a negative effect on the desired character of the area.

- Secure conservation easements that prohibit or limit development and activities on lands adjacent to the roadway. These easements would be granted by or purchased from existing landowners, and could be for a specified period of time, or they could be designed to restrict development and harmful activities on the land forever.

- Manage the construction of driveways and other access points to the highway through the application of road approach standards and a permit process.

- Consider the implementation of partial control of access (limited access control) which would allow access at selected public roads and at private driveways as identified in deeds and other legal documents. This would be implemented by a document approved by the Montana Highway Commission designating the road as a controlled access facility. Access rights to the proposed new highway would be acquired from adjacent land owners through purchase, donation or condemnation. With partial control of access, additional approaches (driveways or access points) would be allowed only where engineering studies demonstrate that they will be safe and will not adversely affect the flow of traffic on the highway and when approved by the Montana Highway Commission.

- If Alternative A, A-1 or No-Action is selected, consider the establishment and improvement of alternate emergency access routes as described in Section 3.2.7.

4.11. CULTURAL RESOURCES

4.11.1. Existing Conditions

A cultural resource survey and report has been completed for the proposed project[23] and the proposed project has been coordinated the Montana State Historic Preservation Office[24]. No sites that are eligible for the National Register of Historic Places have been identified.

4.12. THREATENED OR ENDANGERED SPECIES

Endangered species are defined as "any species in danger of extinction throughout all or a significant portion of its range". Threatened species are any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (Endangered Species Act of 1973). Section 9 of the Endangered Species Act of 1973, requires that threatened and endangered species be protected from "harm" and "harassment" wherever they occur (regardless of recovery boundaries). Three endangered wildlife species (bald eagle, gray wolf, and peregrine falcon) and one threatened species (grizzly bear) are listed on the Flathead National Forest (FNF).

The U.S. Fish and Wildlife Service (USFWS) has indicated that threatened and endangered species that occur or may occur in the general project area include the grizzly bear, gray wolf, bald eagle and peregrine falcon[25]. Informal consultation has also been conducted with USFWS to provide guidance and relevant information with respect to preparation of the assessment for endangered and threatened species in this document.

4.12.1. Bald Eagle

The bald eagle is currently classified as endangered in Montana and is protected under the Endangered Species Act. Strategies to protect and recover bald eagle populations in Montana are outlined in the Pacific Bald Eagle Recovery Plan (USFWS 1986 and adopted as LRMP Appendix RR), the Montana Bald Eagle Management Plan (MBEMP; Montana Bald Eagle Working Group 1986 and adopted as LRMP Appendix QQ), and Habitat Management Guide for Bald Eagles in Northwestern Montana (Montana Bald Eagle Working Group 1991). Bald eagles

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[23]Historical Research Associates, Inc., Cultural Resource Inventory of the Big Mountain Road, MDOH Project RS 487-1(5)3, Flathead County, Montana, 11 July 1991.

[24]Katherine M. Huppe, Historical Survey Reviewer, State Historic Preservation Office, Montana Historical Society, letters dated 17 October 1991, 02 April 1992 and 02 June 1993.

[25]McMaster, Kemper, Field Supervisor, Montana/Wyoming Field Office, U.S. Fish and Wildlife Service, letter dated 23 January 1991.

are also legally protected under the Migratory Bird Treaty Act (1918), the Bald Eagle Protection Act (1940) and the Lacey Act (1901). LRMP direction includes II-23, #5; II-53,#2,3: III-83,#6, Amendments 8, 11 and 13 (Adopted 7/31/89).

The proposed project area is within Management Zone 7 (Upper Columbia Basin) of the Pacific Bald Eagle Recovery Area identified in the Pacific Bald Eagle Recovery Plan (USFWS 1986). Management direction for Zone 7 involves identifying and protecting nesting, feeding, perching, roosting, and winter/migration areas. Direction also includes stabilizing water fluctuations, maintaining and enhancing prey populations (especially waterfowl and kokanee salmon), and regulating and monitoring human disturbance during the nesting season.

4.12.1.1. Natural History/Habitat Needs.

Elements of good bald eagle nesting habitat include an adequate prey base, large mature trees to support nests, and levels of human disturbance which do not disrupt nesting activities. Nest trees are usually taller than surrounding trees, large in diameter, and located in a prominent position near open water. In Montana, all bald eagle nests are in line-of-site of lakes greater than 40 acres or rivers (Paige, 1991). They are most often within 1 mile and 600' elevation of the "associated water body", in trees exceeding 30" diameter. Perch sites are usually in large trees or snags located close to foraging areas or adjacent to a nest tree. Bald eagles sometimes use traditional communal roost sites in winter, especially during periods of severe weather. These roosts can be located in large trees at the head of sheltered draws and may be many miles from a body of water.

Bald eagles are opportunistic foragers whose primary food is fish and waterfowl. They also prey on birds, mammals, and big game carrion (especially during winter months). Selected references: Allen 1981 in Stalmaster et al. 1985, Grubb 1980, Jensen 1989, Montana Bald Eagle Working Grp. 1991, Stalmaster 1987, USFWS 1986, Wright and Escano 1986.

4.12.1.2. Existing Conditions

The proposed project is within the territory of a pair of bald eagles, which have nested at the north end of Whitefish Lake since at least 1984 (Paige, 1991). Paige (1991) described habitat use for this pair and also mapped highly suitable potential nesting and feeding habitat. If any portions of the proposed route meet the nesting habitat criteria listed above, they could be considered alternate nesting habitat. However, the probability of nesting use by bald eagles would be low in areas with high levels of human activity, such as occurs along the existing access route. Paige (1991) identified adequate alternate nesting habitat near the north end of Whitefish Lake in her 1991 report. No roosts have been identified in the area. Bald eagles are known to feed along the Whitefish Lakeshore and in meadows at the north end of the lake. Residents near the south end of the lake occasionally see bald eagles perched in their yards during the winter, when their sensitivity to disturbance is very low. Bald eagles may feed in wetland areas in the vicinity of the proposed project, but this has not been documented.

4.12.1.3. Potential Impacts

The main objective for feeding sites is to maintain the prey source and maintain perches adjacent to them. Bald eagles are known to feed on carrion along portions of Highway 93, but this has not been observed along the Big Mountain access road to date, so the risk of mortality due to collisions is low. None of the proposed alternatives should affect bald eagles provided perch trees and screening vegetation are maintained adjacent to feeding sites. The project area is heavily forested and none of the proposed alternatives will affect screening vegetation. The likelihood of bald eagles nesting in the area or feeding on carrion along the route is low, based on past observations and availability of other habitat with higher suitability.

The U.S. Fish and Wildlife Service urges that any powerlines that may need to be modified or reconstructed as a result of the project be raptor-proofed following the criteria and techniques outlined in the Raptor Research Report No. 4.[26]

Alternative A, A-1, B-1 or No-Action is <u>not likely to adversely affect</u> bald eagles or their critical habitat.

4.12.2. Gray Wolf

The gray wolf is currently classified as endangered in Montana and is protected under the Endangered Species Act. Strategies to protect and recover populations in Montana are outlined in the Northern Rocky Mountain Wolf Recovery Plan (USFWS 1987 and adopted as LRMP Appendix PP). Gray wolves are also legally protected under the Lacey Act (1901). LRMP direction includes: II-34; II-35-38; Amendments 8, 11, 12 (all adopted 7/31/89).

The Big Mountain project area is designated as Management Zone III in the Northern Rocky Mountain Wolf Recovery Plan (1987). Zone I is the area where wolf recovery will be promoted due to the low potential for conflict with other land uses. Zone II is a buffer area located between Zones I and III. Zone III is all land area outside the recovery area (Zones I and II) where wolf recovery will not be promoted due to the high potential for conflict with existing land uses.

The goals and objectives for wolf management in the project area are to allow animals to use the area without a high risk of mortality. As stated in the Northern Rocky Mountain Wolf Recovery Plan (1987; page 33): "Zone III: Maintenance and improvement of habitat solely for wolves and coordination of multiple use activities with wolf management are not management considerations. Minimization of wolf-livestock-human conflicts is a high priority. Any wolf involved in a livestock depredation would be controlled. Any wolf frequenting a livestock area

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[26]R. Olendorff, A. Miller and R. Lehman, <u>Raptor Research Report #4 - Suggested Practices for Raptor Protection on Powerlines - the State of the Art in 1981</u>, 1981. A copy may be obtained from: Jim Fitzpatrick, Treasurer, Raptor Research Foundation, Carpenter St. Croix Nature Center, 12805 St. Croix Trail, Hastings, MN 55033.

and representing a threat to livestock as determined by qualified State wildlife agency or Fish and Wildlife Service personnel may be controlled."

On pages 31 and 32 of the Wolf Recovery Plan it is stated that:

> *"Identification of dispersal corridors in Zone III is not expected or intended to curtail multiple-use management. Management emphasis will be directed at preventing human-caused mortality and adhering to existing big game management guidelines."*

Management direction applicable to the project area from the U.S. Fish and Wildlife Service (which has management authority for federally listed Threatened and Endangered Species) includes maintaining an adequate prey base for wolves and minimizing mortality risk without imposing unnecessary land restrictions (Fontaine, pers. comm. 1991). Tally Lake District personnel have been working with local schools to help educate residents about wolves. The two major components of wolf habitat that provide survival and recovery value are: 1) adequate prey base (elk and white-tailed deer habitat analysis) and 2) habitat security/ mortality risk (distance to open roads, distances to cover and public education). Additional components include special habitats such as dens, rendezvous sites and travel/dispersal corridors.

4.12.2.1. Natural History/Habitat Needs

Wolves are highly social animals and form packs of to 2 to 20 individuals. They maintain a territory from 40 to 1,000 square miles, depending upon pack size and available prey. Dispersing juvenile wolves may move over 100 miles from their place of birth in a single season (Fritts and Mech 1981). Wolves require isolation from human disturbance during denning and an ungulate prey base; particularly white-tailed deer in northwest Montana. The local geographic range of breeding wolves includes Glacier National Park, the North Fork of the Flathead River, and the Stillwater and Tobacco River drainages. Habitats of these areas are primarily conifer forests interspersed with large meadows and riparian areas. Selected references: USFWS 1987, Ream, et al. 1989 and Reel, Schassberger, and Ruediger 1989.

4.12.2.2. Existing Conditions

There is an abundant year-round prey base on and around the Big Mountain. Wolves often den in areas within close proximity to big game winter ranges, so there is a potential wolves could den in the vicinity. To date, no wolf denning or rendezvous sites have been identified within or adjacent to the Big Mountain area. No reports of wolf pups or howling have been received and there is no evidence of pack formation or occupancy by breeding individuals at the present time (Fairchild, USFWS, Univ. of MT, personal communication 1992).

Members of adjacent packs or dispersing wolves use the area on or around Big Mountain, at least occasionally. One black and one gray wolf were reported in the Haskill Basin area in Dec. 1990, about one mile east of Alternative B-1. Tracks of two individual wolves were reported in the same area in Nov. 1990. A single wolf was observed at the Big Mountain base area for a period of a few days during the winter of 1991-92. None of the radioed members of adjacent

packs have used the area to date. The Murphy Lake pack spends most of its time from Dog Lake north and the pack in the North Fork Flathead River, for the most part, uses the area north of the Big Creek confluence.

4.12.2.3. Potential Impacts

The objective for wolves in the proposed project area is to maintain the prey base and avoid actions which would increase the mortality risk or lead to "harm" and "harassment". At the present time, wolf use of the area is sporadic, so the risk of mortality or harassment is fairly low. If a wolf pack were to den in the area the mortality risk would increase due to a higher probability of wolves encountering people. Wolf injury or mortality would result from shooting, trapping, poisoning or vehicle collisions. The home range of the Murphy Lake pack is in an area adjacent to Highway 93 and pack members are frequently seen crossing the highway. This pack appears to be breeding successfully in an area within close proximity to human developments.

Effects of alternatives for wolves would be similar to those described for the grizzly bear (Section 4.12.4). In the long-term, Alternative B-1 would have a greater impact on habitat security and mortality risk than the other alternatives by extending areas with high levels of human use farther to the east. Alternative A and A-1 are in an area which is already in close proximity to residences and a high use road, so they would not change the existing situation.

Alternative A, A-1 or No-Action will have <u>no effect</u> and Alternative B-1 is <u>not likely to adversely affect</u> gray wolves or their critical habitat.

4.12.3. Peregrine Falcon

The peregrine falcon is currently classified as endangered in Montana and is protected under the Endangered Species Act. Strategies to protect and recover populations in Montana are outlined in the American Peregrine Falcon Recovery Plan (USFWS 1984 also LRMP Appendix SS). Peregrine falcons are legally protected under the Migratory Bird Treaty Act (1918) and the Lacey Act (1901). LRMP direction includes II-23, Amendments 8, 11, and 13.

4.12.3.1. Natural History/Habitat Needs

Nesting habitats most often include tall cliffs overlooking an open expanse of lake, marsh or river bottom. Peregrine falcons feed almost exclusively on birds and may search for prey up to 18 miles from the nest. During migration seasons, they may travel long distances and visit many different habitat types. They feed and winter in open areas where concentrations of birds are available to prey upon. The geographic range of the peregrine falcon includes all of northern Montana but they have been relatively uncommon in the area of the proposed project. References used: Rocky Mountain/Southwestern Peregrine Falcon Recover Team 1984; Reel, Schassberger and Ruediger 1989.

4.12.3.2. Existing Conditions

The proposed project area does not contain suitable nesting habitat for peregrine falcons. Falcons may fly over the area during migrations, but there have not been any reported sightings in the project area.

4.12.3.3. Potential Impacts

Alternative A, A-1, B-1 or No-Action will have no effect on peregrine falcons or their critical habitat.

4.12.3.4. Mitigation Measures

The U.S. Fish and Wildlife Service has requested that any powerlines that may need to be modified or reconstructed as a result of the project be raptor-proofed following the criteria and techniques outlined in the Raptor Research Report No. 4[27].

4.12.4. Grizzly Bear

The grizzly bear is currently classified as threatened in Montana and is protected under the Endangered Species Act. Threatened status affords the grizzly bear and its habitat special protection from adverse effects resulting from federally authorized or funded projects. This status also directs federal agencies to develop conservation strategies to recover grizzly populations. The Big Mountain area is in a portion of a grizzly bear recovery zone known as the Northern Continental Divide Grizzly Bear Ecosystem (NCDGBE), one of six zones in the United States (Grizzly Bear Recovery Plan, USFWS 1982). The Big Mountain area is listed as "occupied grizzly bear habitat" (Grizzly Bear Recovery Plan, 1982; Flathead National Forest EIS). Habitat suitability combined with consistent grizzly observations and analysis of habitat components provide the basis for this classification, LRMP II-24 to 33; Amendments 8, 9, 11 (Adopted 7/31/89).

The Flathead Forest Plan[28] indicates no specific bear management requirements for the small amount of National Forest lands in the project area. The management emphasis for forest lands in the project area, as indicated in the plan, is to manage as a winter sports area under the Big Mountain Ski Area Master Plan.

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[27]R. Olendorff, A. Miller and R. Lehman, Raptor Research Report #4 - Suggested Practices for Raptor Protection on Powerlines - the State of the Art in 1981, 1981.

[28]U.S. Department of Agriculture, Forest Service, Flathead National Forest, Forest Plan, December 1985.

4.12.4.1. Natural History/Habitat Needs

Grizzly bears require large areas of habitat and low levels of human disturbance. Currently they are found in Northwestern Montana along the Northern Continental Divide and surrounding area. Grizzly bears may move seasonally along an elevation gradient. High quality habitats include avalanche chutes, huckleberry shrub fields, mixed shrub fields, seeps, grasslands, timbered sidehill parks, old burns, alpine slab rock areas and subalpine forests. They spend an average of four to five months a year inside a den, entering after the first heavy snowfall (November) and emerging in late March - early April (Reel, Schassberger, and Reudiger 1989).

4.12.4.2. Cumulative Effects Analysis

As indicated in Section 2.7.2., the U.S. Forest Service is currently preparing an environmental impact statement for a proposal to expand winter and summer recreation opportunities at the Big Mountain Ski and Summer Resort. To address the issue of cumulative impacts on grizzly bears as a result of resort expansion and related existing and planned developments and expansion (including Alternatives A-1 and B-1 of the proposed Big Mountain Road), the Tally Lake Ranger District has completed an analysis using a computer model based on concepts described in CEM - A Model for Assessing Effects on Grizzly Bears (CEM).

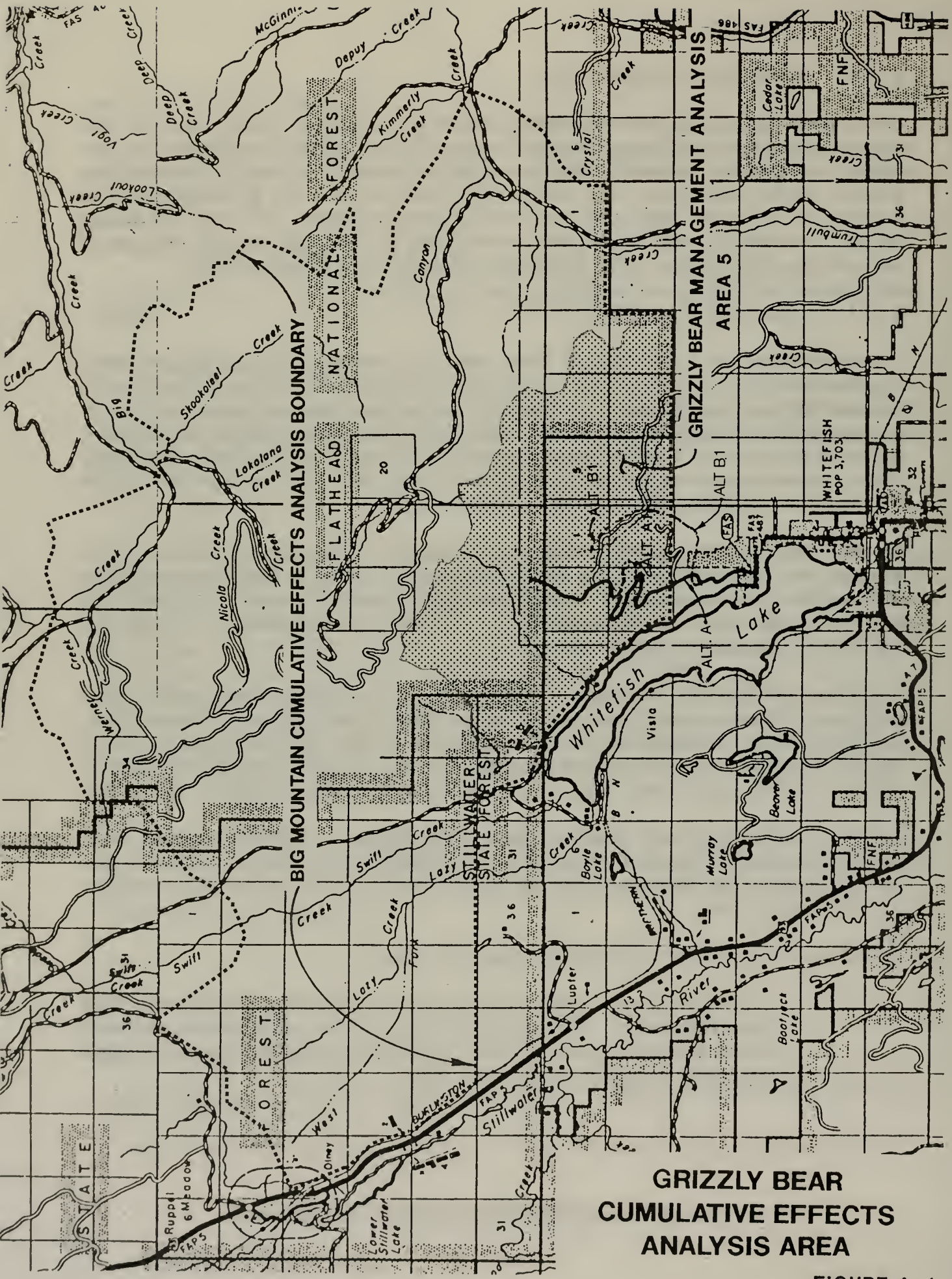
For the analysis, a study area of approximately 100 square miles was selected consisting of the 6 existing Bear Management Analysis Areas (BMAA) located closest to Big Mountain plus one additional BMAA encompassing private lands in the Haskill Basin. The northern portions of the proposed Big Mountain Road alternatives lie within BMAA 5. The boundaries of the study area and BMAA 5 are shown on Figure 4-1.

As indicated on Figure 4-1, the southern portions of the proposed roadway are outside the CEM study area. This area is mostly small private parcels with relatively high levels of development. Such areas are not compatible with grizzly bear recovery efforts because of the relatively high potential for human-bear conflicts, often leading to bear mortality. New road development in these areas will not significantly affect current levels of displacement and habitat effectiveness.

The CEM study area also was identified without knowledge that this environmental assessment was being prepared for the Big Mountain Road. The CEM analysis effort was underway when the Big Mountain Road Project was included in the analysis so it was impractical to redefine a new CEM analysis area.

The outputs of the model are displayed by season and include:

- Habitat effectiveness, with numbers close to zero representing the lowest level of habitat effectiveness. Habitat effectiveness is an index of the seasonal capability of an area to support bears. Habitat effectiveness values decrease when human activities reduce grizzly bear use of habitat.



GRIZZLY BEAR CUMULATIVE EFFECTS ANALYSIS AREA

FIGURE 4–1

- Displacement coefficients ranging from 0 to 1.0, with numbers close to 0 representing the highest level of displacement. 1.00 represents a "no disturbance" situation. Displacement coefficients reflect the degree to which habitat within an influence zone remains effectively useable by bears. Influence zone describes the distance within which grizzly bears are assumed to be affected by a given activity. Influence zones vary in size depending on how much a given activity would displace bears or discourage use of habitat. A displacement coefficient of 0.5 is interpreted to mean that an area's ability to support bears is 50% of potential, 50% of bears have been displaced, or all bears use the area 50% of the time, or any combination.

- Graphic displays showing cumulative patterns of displacement and habitat effectiveness.

Outputs described above are intended to provide a relative assessment of the capability of an area to support grizzly bears. The model was developed to analyze changes in habitat effectiveness over time across large areas and was not intended to provide a detailed assessment of the direct, site-specific effects of a proposed action. As a result, the descriptions of effects which follow are at a rather broad scale.

4.12.4.3. Existing Conditions

Relative Habit Value. Haskill Basin is known spring habitat for grizzly bears. The acreage of high value spring habitat is low adjacent to the existing Big Mountain Road and increases from Haskill Creek to the east. There are meadows on Stoltze Land and Lumber Company lands where grizzlies are sighted in the spring on a regular basis. A sow with cubs was observed in the area 4 to 5 years ago (Dave Wedum, pers. comm., 1992). Portions of the Haskill Basin area have abundant huckleberries which attract bears in the fall.

Displacement. As indicated on Figure 4-1, portions of Alternatives A, A-1 and B-1 and the No-Action Alternative are located within the cumulative effects analysis area. The alternatives are located in an area which has the highest level of displacement on a year-round basis, when compared with other portions of the cumulative effects analysis area. The CEM Model indicates that average displacement coefficients in the cumulative effects analysis area range from 0.38 in fall to 0.75 in spring -- 1.00 represents a "no disturbance" situation. The CEM Model indicates that displacement coefficients in the area surrounding the proposed project are 0 to 0.2, year-round, due to: 1) the cumulative effect of high use roads such as the existing Big Mountain Road or the road along Whitefish Lake, 2) residences, 3) the Big Mountain resort and 4) high levels of other recreation use such as mountain biking.

Habitat Effectiveness. Habitat effectiveness values for the cumulative effects analysis area generated by the model are summarized as follows:

	Environmental Baseline*	Current Habitat Effectiveness
Early Spring	0.55	0.28
Spring	0.43	0.32
Summer	0.43	0.18
Autumn	0.49	0.17

* This shows what the habitat effectiveness level would be if there were no human disturbance. It is a "weighted average" based on habitat condition alone.

Human Conflicts. Grizzlies have been trapped and moved from the Haskill Basin area twice in the past 13 years; a female with cubs in 1979 and an adult male in 1989. Within the past 5 years, there have been a half dozen unconfirmed grizzly complaints and 12 to 15 black bear complaints. Some of these resulted in control actions and some did not (Dave Wedum, pers. comm.). Dave Wedum also received a report on an illegal grizzly kill in the "old mine" area in 1985 or 1986, but was unable to confirm it. He has not received grizzly bear complaints in the vicinity of the existing Big Mountain Road.

4.12.4.4. Potential Impacts.

Displacement and Habitat Effectiveness. No-Action Alternative and Alternative A. With these alternatives, the existing access road to Big Mountain will continue to receive high levels of use by people on a year-round basis. The combined effect of human developments within the influence zone of these alternatives is likely to preclude much use by grizzly bears. Encounters between grizzly bears and people have not occurred in this area in recent years despite the presence of attractants. There would be no change in displacement or habitat effectiveness.

Alternative A-1. With this alternative, there is no appreciable difference in displacement or habitat effectiveness during any season. The influence zone of the new loop does not extend beyond the combined influence zones of existing human activities, except in early spring. In early spring, the influence zone would increase the area with low (0 to 0.2) habitat effectiveness by 31 acres.

Alternative B-1. The influence zone of this alternative will extend to the east beyond the influence zones of existing human activities to a greater degree than the other alternatives. The greatest change would be in early spring, when the area with low habitat effectiveness (0 to 0.2) would increase by 180 acres. Influence zone changes are less pronounced in other seasons with an increase of 86, 20 and 62 acres during spring, summer and fall.

Human Conflicts. There will be increased development along the Big Mountain Road in future years, just as there has been in the past. This can result in increased displacement of bears or a higher risk of bear mortality due to human-bear conflicts. Attractants associated with residences and restaurants such as garbage, dog food, horse feed, etc., often draw bears into areas with people.

No-Action Alternative and Alternative A. The risk of human-grizzly conflicts is not likely to increase with either of these two alternatives.

Alternative A-1. The risk of human-grizzly conflicts is not likely to increase much with this alternative, since this route is in an area with existing residential development (Ptarmigan Village, etc.). This route is not as likely to extend the "interface" area to as great a degree as Alternative B-1 will.

Alternative B-1. Of all the alternatives discussed in detail in this document, B-1 has the greatest potential to extend the "interface" area farther to the east into areas where residential development has not yet occurred. Most of this area is currently owned and managed by Stoltze Land and Lumber Company, and the company has indicated that plans call for continued management for timber harvest[29]. There is no guarantee, however, that portions of the land may not be sold and subdivided in future years as property values continue to increase.

Alternative A, A-1 or No-Action is <u>not likely to adversely affect</u> grizzly bears or their critical habitat.

Alternative B-1 <u>may adversely affect</u> grizzly bears or their critical habitat because it has the potential to extend the human-bear interface area farther to the east into areas where residential development has not yet occurred.

4.12.4.5. Mitigation Measures

As indicated in Section 4.10. LAND USE, conservation easements or zoning may be effective to help control potential development along the highway corridor and mitigate related adverse impacts.

4.13. FISH, WILDLIFE AND PLANTS

This section discusses wildlife, fisheries, vegetation and rare or sensitive species in the area of the proposed project. Threatened or endangered species are not discussed in this section but are discussed in Section 4.12. THREATENED AND ENDANGERED SPECIES.

4.13.1. Wildlife

4.13.1.1. Existing Conditions

Sensitive wildlife species in the Flathead National Forest show evidence of a current or predicted downward trend in population numbers or habitat suitability that would significantly reduce

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[29]Ronald Buentemeier, Timber Manager, Stoltz Land and Lumber Company, letter dated 19 February 1992.

species distribution[30]. The Regional Forester has identified 8 sensitive wildlife species on the Forest (5/91), including:

Black-backed woodpecker	Flammulated owl
Boreal owl	Harlequin duck
Common loon	Lynx
Fisher	Western big-eared bat

The intent of this sensitive species listing is to provide special management emphasis to ensure that species do not become threatened or endangered.

The common loon, flammulated owl, Harlequin duck and western big-eared bat are not addressed further in this analysis because of lack of suitable habitat in the project area. There are no known effects due to the proposed action when combined with past, present and reasonably foreseeable future actions.

Table 4-1, Sensitive Wildlife Species

SPECIES	HABITAT	COMMENTS
Black-backed woodpecker	Coniferous forest, burned and insect infested areas	Suitable habitat not present in the project area but species may be transient visitor
Boreal owl	Mature coniferous forest >4,200 feet elevation	Most forest in the project area has been logged or is immature
Fisher	Immature and mature timber and wetlands	Habitat and prey present but probably displaced from project area by high levels of human activity
Lynx	Boreal and mature forest	Habitat and prey present but probably displaced by high levels of human activity

[30]Flathead National Forest, Big Mountain Ski and Summer Resort, Draft Environmental Impact Statement, 1993.

Sensitive species for which suitable habitat may exist in the proposed project area and their habitat preferences are listed in Table 4-1.

It is unlikely that black-backed woodpeckers or boreal owl would nest or forage in the project area because habitat for these species is marginal. Most of the project area has been logged or is immature forest with few suitable trees or snags with cavities large enough for nesting. Fisher and lynx may occasionally approach the project area but high levels of existing human activity tend to displace these species and discourage use of suitable habitat. Various other species occur in the project area including deer, elk, moose and black bear. All of Alternative A (approximately 5.2 miles), 3.6 miles of Alternative A-1 and 1.2 miles of Alternative B-1 will be constructed on or close to the existing Big Mountain Road alignment. Wildlife use and relative habitat value near the proposed project in these areas are low due to the influence of the existing highway traffic, residential areas and related human activities.

Approximately 1.2 miles of Alternative A-1 will be constructed on new alignment -- up to 1600 feet from the existing roadway and within 1/2 mile of the Ptarmigan Subdivision. Wildlife use and relative habitat value in this area are higher than along the existing alignment, but are still influenced and reduced by the proximity of the existing highway, the subdivision and related human activities.

Approximately 4.3 miles of Alternative B-1 will be constructed on new alignment on private land up to 1.1 miles from the existing highway and up to approximately 1 mile from the nearest residential areas. This area has historically served for timber production and includes several unimproved haul roads. Public vehicular access is normally not allowed and is prevented by locked gates. The project crosses and parallels Haskill Creek and other small streams and related riparian and other high quality wildlife habitat is present. Wildlife use and relative habitat value in this area is estimated to be the highest of any of the proposed alternatives, but is still somewhat influenced by its proximity to the highway, the Big Mountain Resort and residential areas.

4.13.1.2. Potential Impacts

As indicated in Section 4.15. RIGHT-OF-WAY, approximately 76, 82 and 116 acres of new right-of-way will be required with Alternatives A, A-1 and B-1.

Most of the habitat affected by Alternatives A and A-1 is already highly influenced by the existing highway, residential areas and human activities and is considered to have relatively low use and relative habitat value.

A substantial portion of the habitat affected by Alternative B-1 is in an area that has no public roads and is relatively uninfluenced by human activities. It is considered to have higher use and value for wildlife.

Alternatives A and A-1 should not significantly affect wildlife crossings of the roadway nor increase wildlife-vehicle collisions. Following the completion of the project, traffic speeds may

increase slightly as motorists become more comfortable with the safer roadway. This in turn may increase wildlife-vehicle collisions. It is also felt that animals may become confused when trying to cross wider roadways with wider clear zones, again resulting in potentially higher collision rates. On the other hand, driver sight distance will improve with the wider roadway and clear zone, thus allowing motorists to better identify and avoid potential collisions. Historically, collision rates have not significantly deviated from existing levels after construction.

Alternative B-1 will place a new roadway in an area where currently few conflicts between wildlife and motor vehicles occur. The potential for increasing wildlife-vehicle collisions will be higher.

With Alternative B-1 and, to a lessor extent, Alternatives A and A-1, there may be limited loss of individuals of some species due to construction-related contacts during habitat removal. These losses should not have long-term effects on local populations and within a short time the affected populations should re-establish to pre-construction levels.

Removal of conifer forest for construction of Alternative A and A-1 would have negligible impacts on sensitive species. Habitat that would be removed is adjacent to existing roads with high levels of human activity and low incidence of wildlife use. Alternative B-1 would pose a somewhat greater impact risk to fisher and lynx than Alternative A and A-1. This alternative would affect an area with lower levels of existing human development and activity. Although this alternative could displace lynx and fisher from areas with low to moderate habitat values, the loss of habitat (116 acres) would be insignificant to the species over its range on the Flathead National Forest.

Indirect and cumulative impacts may occur as a result of construction of residences and businesses that will be encouraged by the road improvements, expansion of the Big Mountain Resort and development in and around the City of Whitefish. These developments increase the human activity in the project area which discourages wildlife use of existing habitat and increases the potential for wildlife losses. Alternative B-1 and, to a lessor extent, Alternative A-1 will provide access to and have the potential to encourage accelerated development in currently undeveloped areas.

The No-Action Alternative should have no impact on wildlife in the project area.

4.13.1.3. Mitigation Measures

The following measures will be completed to mitigate potential adverse impacts to wildlife with any of the proposed alternatives:

- Damage to vegetation and habitat will be limited to areas necessary for placement of the new highway and for safety clearances.

- Revegetation of areas disturbed by construction will begin immediately after construction and will, as closely as possible, restore habitats to pre-construction conditions or better.

- Plant species used for revegetation of the highway right-of-way will be species that are not highly palatable to ungulates and do not encourage them to feed near the roadway.

- Where potential mineral licks are encountered in roadway excavation areas, they will be covered with topsoil and revegetated.

- Road-killed animals will, as quickly as practical, be removed from the roadway by Montana Department of Transportation maintenance crews.

- Powerline relocation will be constructed and raptor-proofed in accordance with Raptor Research Report No. 4[31] to prevent possible electrocution.

With any of the proposed alternatives, but particularly if Alternative B-1 is constructed, consideration should be given to establishing conservation easements or implementing zoning or other land use controls to allow regulation of development in areas considered important to wildlife.

4.13.2. Fisheries

4.13.2.1. Existing Conditions

Haskill Creek, First Creek and other small streams crossed by or in the vicinity of Alternative B-1 are small streams and do not support fish populations.

No streams or other potential water bodies which may support fisheries are in the vicinity of Alternatives A or A-1.

4.13.2.2. Potential Impacts

None of the proposed alternatives will directly impact fisheries.

Erosion and sedimentation during and after construction may potentially impact fisheries downstream of the project area. Hazardous materials used for construction (such as fuels, asphalts, paints or other construction materials) or transported on the highway after it is completed may also potentially impact streams and fisheries downstream of the project area.

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[31]R. Olendorff, A. Miller and R. Lehman, Raptor Research Report #4 - Suggested Practices for Raptor Protection on Powerlines - the State of the Art in 1981, 1981.

4.13.2.3. Mitigation Measures

Prevention of erosion and resulting sedimentation, particularly on Alternative B-1, will help ensure that downstream water bodies, that may contain fisheries, will not be impacted (Section 4.8.3. Water Quality, Mitigation Measures).

As described in Section 4.20. Hazardous Waste, use and application of hazardous construction materials will be carefully planned, implemented and monitored. Improving the existing highway will improve safety for trucks transporting hazardous materials, such as fuels, to the Big Mountain Resort which will decrease the potential for hazardous material spills and contamination of the streams.

4.13.3. Vegetation

4.13.3.1. Existing Conditions

The U.S. Forest Service has identified 28 sensitive species known or suspected to occur on the Flathead National Forest (Table 4.13-1). Based on habitat characteristics, the following 3 species could potentially grow in the project area:

Clustered lady's slipper
Howell's gumweed
Northern rattlesnake-plantain

Reconnaissance vegetation studies of the project area that may be affected by the proposed project were conducted in July, 1992[32]. During the studies, 87 plant species were recorded and plants designated as "sensitive" by the U.S. Forest Service, specifically the three listed above, were searched for but were not found.

4.13.3.2. Potential Impacts

Trees will be removed to allow construction of the proposed roadway and to provide an appropriate clear zone (the zone adjacent to the roadway that must be kept clear of obstacles to provide adequate sight distance and safety). The clear zone will not be an area of consistent width. Its width will vary based on standards contained in the AASHTO Roadside Design Guide[33]. The variable clear zone width will depend on excavation and embankment slope ratios, traffic volumes and degree of horizontal curvature of roadway. Clearing may be done in some areas where shading might occur during winter months to help reduce snow and ice accumulation on the roadway.

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[32]Joe C. Elliott, letter and attachment dated 04 August 1992.

[33]American Association of State Highway and Transportation Officials, Roadside Design Guide, October 1988.

Since no plants designated as "sensitive" were found, no impacts on sensitive plant species are anticipated.

One of the more serious concerns associated with the highway reconstruction entails the creation of habitat suitable for noxious weed colonization. Approximately 70 acres of land will require reseeding based on an average disturbance of 60 feet on either side of the final paved surface. Exposed soils, particularly adjacent to highways, are extremely vulnerable to weed establishment. Off site movement from highway corridors onto adjacent land can result in serious land devaluation and productivity, added operational costs and the potential for environmental degradation through improper herbicide use. The presence of flowing water in the immediate vicinity lends an additional risk to downstream landowners concerned over noxious weed invasion. Seeds and plant fragments can travel great distances in water before resettling in a germinable position.

The No-Action Alternative should have no impact on vegetation in the project area.

4.13.3.3. Mitigation Measures

In the event sensitive plant population(s) are discovered, appropriate means of mitigating their loss will be initiated. This may include, but not be limited to, transportation to like habitats off site, seed collection and reseeding, preservation of the site if possible, and/or minor realignment. Coordination of activities with Flathead National Forest and Natural Heritage Program personnel will assure that efforts to relocate of reestablish populations will have reasonable chance of success.

Weed control associated with construction activities of this nature will be approached in two phases; temporary (construction) and permanent (post-construction). A predisturbance survey and/or review of weed district records will indicate the presence or prior occurrence of weeds in the disturbance corridor. The assumption can be made that a sizable seedbank of weed seeds exists on site if either of the above conditions are met. It is imperative that noxious weeds be prevented from going to seed on exposed soils in light of the potential of one spotted knapweed plant to produce upwards of two thousand seeds in one season.

Seeds or plant fragments attached to construction equipment or vehicles and placement of contaminated fill or erosion control material are common means of weed seed introduction. Judicious cleaning of equipment and selection of weed seed free materials will be employed.

Temporary weed control will entail careful monitoring of newly exposed soils and immediate removal of plants. Handpulling or hoeing will be employed for scattered plants. Grubbed plants will be collected and disposed of if any flowers have opened. Spot spraying will be utilized if excessive numbers of weeds establish on site. Herbicide applications will be made by a knowledgeable, licensed applicator. Spraying will be timed to achieve maximum efficacy. Spraying is not recommended on topsoil stockpiles or in highly erosive areas. Short residual herbicides will be used to prevent possible phytotoxicity to newly emerged grass seedlings once seeding is conducted. In no case, shall soil sterilants be used.

Permanent weed control will be approached through preventive measures. Proper grading, topsoil treatment, seedmix selection and seeding operations will be employed to establish a vigorous cover of competitive, desirable species. Monitoring and removal of even small numbers of individual weeds for 2-3 years following disturbance will greatly enhance grass stand development.

4.14. AGRICULTURAL LANDS

4.14.1. Existing Conditions

There is no prime or unique farmland in the project area and there are no irrigated lands. There are no irrigation water conveyance facilities located in the project area.

Timber lands are the only agricultural resource that will be affected by the proposed project.

4.14.2. Potential Impacts

Most of the land that will be converted to highway right-of-way for either Alternative A, A-1 or B-1 is timber covered.

Most of the area required for right-of-way for Alternative A or A-1 is located adjacent to the existing roadway, has historically not been used for timber production and there are no known plans for significant timber production in the future, with or without the proposed project[34]. The Flathead Forest Plan[35] indicates that U.S. Forest Service land affected by the project is classified as unsuitable for timber management and timber harvest will not be scheduled.

Most of the area required for right-of-way for Alternative B-1, from where it leaves the existing roadway to where it enters the Big Mountain Resort, is on private land and has been used, is currently being used, and will probably be used in the future for timber production. Stoltz Land and Lumber Company, the major owner of timber production lands along Alternative B-1, has indicated that management goals in the past and in the future, for the company Lands in Haskill Basin, are for intensive forest management to provide a sustained raw material supply for the company's sawmill at Half Moon[36]. Concern has been expressed that conflicts and potential resulting accidents between recreational vehicles and logging trucks and equipment will occur.

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[34]Landowners adjacent to the project have indicated, however, that even though land adjacent to Alternatives A and A-1 have historically not been used for timber production, merchantable timber does exist in these areas. During right-of-way appraisal and negotiations, the value of this timber will be determined and land owners will be compensated.

[35]U.S. Department of Agriculture, Forest Service, Flathead National Forest, Forest Plan, December 1985.

[36]Ronald Buentemeier, Timber Manager, Stoltz Land and Lumber Company, letter dated 19 February 1992.

The No-Action Alternative will not affect timber lands in the project area.

4.14.3. Mitigation Measures

As indicated in 4.13.3. Vegetation, timber will be removed only to allow construction of the proposed roadway and to provide an appropriate clear zone.

4.15. RIGHT-OF-WAY

4.15.1. Existing Conditions

Land use of areas that will be converted to highway right-of-way with the proposed alternatives is described in Section 4.10. and Section 4.14.

4.15.2. Potential Impacts

With Alternatives A, A-1 or B-1, additional right-of-way will be required. Where the proposed project follows the existing roadway, existing right-of-way will be retained and used as much as possible and additional right-of-way will generally be required on at least one and often both sides of the existing right-of-way. When the roadway is constructed on new alignment (portions of A-1 and B-1), all new right-of-way will be required.

Design standards indicate that a minimum right-of-way width of 120 feet (a minimum of 60 feet each side of centerline) is desirable for a highway of this type. Where severe restrictions exist, where substantial environmental impacts would occur and where safety standards are not compromised, a narrower right-of-way can sometimes be used.

Right-of-way is generally required to approximately 20 feet outside construction limits (the outside edges of excavation and embankment slopes) to allow for construction and maintenance. With this roadway and its substantial excavation and embankment slopes, more than the 120 foot minimum right-of-way width will often be required -- total right-of-way widths of over 300 feet will be required in some areas.

The following is a list of new and existing (No-Action Alternative) right-of-way widths and areas that will be required with each of the proposed alternatives:

Alternative	Minimum Width (Feet)	Maximum Width (Feet)	Exist R/W Area (Acres)	New R/W Area (Acres)	Total R/W Area (Acres)
No-Action	60	100	58	0	58
A	120	320	58	76	134
A-1	120	320	39	82	121
B-1	120	280	14	116	130

Approximately 24 and 20 acres of new right-of-way will be required from U.S. Forest Service lands with Alternatives A and A-1. No U.S. Forest Service lands will be affected by Alternative B-1 or No-Action.

The following is a summary of estimated right-of-way costs:

No-Action	n/a
Alternative A	$1,000,000
Alternative A-1	$1,080,000
Alternative B-1	$ 930,000

Limited access control is proposed for this project. This will limit approaches to the new roadway to areas where engineering studies indicate they are safe and do not adversely affect the capacity and level-of-service of the roadway. New approaches will also require the approval of the Montana Highway Commission.

4.15.3. Mitigation Measures

Right-of-way will be acquired only as required to construct the proposed roadway and its excavation and embankment slopes. Where severe restrictions exist, where substantial environmental impacts may occur and where safety standards are not compromised, the total right-of-way width may be reduced in some areas.

Constructing steeper slopes or retaining walls in critical areas may be desirable to reduce the right-of-way width required. This may require guardrail in areas where it otherwise might not be needed.

The acquisition of land or improvements for highway construction is governed by state and federal laws and regulations designed to protect both the landowners and the tax paying public. Landowners affected are entitled to receive fair market value for any land or buildings acquired and any damages to remaining land due to the effects of highway construction. The accepted method of determining these payments is through the appraisal process. Once an appraisal is completed, reviewed and approved, a monetary offer will be made for land and improvements needed to be acquired for construction. This offer will be discussed with the landowner and the necessary negotiations will be conducted before completing the agreement to transfer the land to highway right-of-way.

4.16. CONSTRUCTION

4.16.1. Existing Conditions

Most of the construction will, of necessity, occur during summer months. Traffic volumes during the summer are significantly lower than during the winter, ski season months. It is recognized that summer traffic is still substantial and is important for summer activities and access.

An existing sanitary sewer line is located in the existing right-of-way from the beginning of the project to approximately 1.5 miles north. This eight inch PVC line is the outfall for the Big Mountain Sewer District collection and treatment system. In this same area, several private water service lines are located within the highway right-of- way.

Overhead and underground telephone and electrical lines are located throughout the length of the existing roadway. An underground natural gas line is located near the beginning of the proposed project.

4.16.2. Potential Impacts

Construction related activities will result in some short term adverse impacts which cannot be avoided. These impacts will be temporary and should last only for the duration of construction activities. These impacts include:

- Emissions from asphalt plants and crushers,
- Dust from construction equipment activities,
- Increased noise levels from construction equipment,
- Potential for erosion from fresh cut and fill slopes,
- Increase in water turbidity in streams from construction activities, and
- Inconvenience to highway users resulting from delays, detours and temporary surfacing.

Gravel and borrow sources for base and surfacing aggregates have not yet been defined.

The following lengths of each project will be constructed on the existing roadway alignment:

	Portion of Construction on Existing Alignment	Portion of Construction on New Alignment
No-Action	n/a	n/a
Alternative A	5.2 Miles (100%)	0.0 Miles
Alternative A-1	3.6 Miles (75%)	1.2 Miles
Alternative B-1	1.2 Miles (22%)	4.3 Miles

In most cases, the existing roadway will remain and will be used to provide access to adjacent land. Where the existing roadway is no longer needed, asphalt pavement will be removed and disposed of as indicated in Section 4.20. and the roadbed will be obliterated by reshaping it to blend in with surrounding terrain, retopsoiling and reseeding with native plants.

Where construction occurs on new alignment outside the right-of-way of the existing road, there will be no reduced safety, substantial delays or inconvenience to the travelling public. Where construction occurs on the existing alignment, considerable inconvenience and delays will be experienced during mainly the summer of the first construction season. Delays of up to 15 minutes will occur frequently to allow one-way traffic through narrow construction areas and to allow clearance and passage of trucks and other construction equipment. Few longer delays are anticipated. It is estimated that two construction seasons (approximately May through October) will be required to construct any of the proposed alternatives. Most delays and inconvenience will occur during the first construction season when most excavation, embankment, pipe culvert installation, and possibly asphalt surfacing will be constructed. These are the major items that affect highway traffic and will cause the most delays.

During the second season, it is anticipated that asphalt pavement (if not completed during the first season), seal coats, signing, striping, re-topsoiling and permanent seeding will be completed. These items will cause only brief, if any, interruptions in the flow of traffic.

Since a smaller portion of the construction of Alternative B-1 will occur on the existing alignment, safety concerns, delays and inconvenience to the travelling public will be correspondingly less than with Alternatives A and A-1.

Representatives of the Resort and other businesses have indicated that they are very concerned about lost business during the summer during construction of the roadway as a result of substantial inconvenience and delays that will be experienced if Alternative A or A-1 is constructed.

The terrain in the project area is mountainous. Between Stations 110+00 and 131+00 of Alternative A or A-1, the area where the lower switchback will be improved, the excavation and embankment heights will approach 80 feet if standard 2:1 (2 horizontal to 1 vertical) embankment slopes are used and excavation slopes will approach 100 feet high if standard 1.5:1 excavation slopes are used. From Station 131+00 to 215+00, heights near 50 feet will be common if Alternative A-1 is constructed. Excavation and embankment heights will be less if Alternative B-1 is constructed with only a few areas where 40 foot heights are approached or exceeded.

The following is a summary of estimated construction costs:

No-Action	n/a
Alternative A	$5,200,000
Alternative A-1	$4,900,000
Alternative B-1	$5,100,000

As indicated in Section 4.1., there will be a temporary increase in construction related jobs in the project area during the two-year construction period of the project.

It is anticipated that with either Alternative A, A-1 or B-1, the existing sanitary sewer line located in the existing right-of-way from the beginning of the project to approximately 1.5 miles north will generally remain in-place with adjustments, as required, to manholes and other features. With either Alternative A, A-1 or B-1, the private water service lines located in the same area will also generally remain in-place and only minor adjustments will be required.

Significant adjustments to overhead and underground telephone and electrical lines will be required where the roadway is reconstructed in or near its present location. Since Alternatives A and A-1 will follow the existing alignment for most of its length, they will have the most impact on these utilities. Alternative B-1, after it leaves the existing roadway alignment, should have little or no impact on existing pubic utilities.

Alternative A, A-1 or B-1 will not significantly affect the underground natural gas line located near the beginning of the proposed project and only minor, if any, adjustments and protection measures will be required.

4.16.3. Mitigation Measures

Dust will be controlled by watering and/or other acceptable methods. An erosion control plan will be developed and implemented as described in Section 4.8.3.

Borrow material removal and gravel pits will be subject to applicable rules and regulations of the Montana Open Cut Mining Act -- a mine reclamation plan will be required.

A temporary water use permit will be required for water needed for dust control or other construction related purposes[37].

In areas where the existing roadway is reconstructed, traffic will be maintained through the project during construction. A traffic control plan will be completed to, as much as possible, maximize safety and minimize inconvenience to motorists. The plan will designate how traffic will be maintained through construction areas.

Delays of longer than 30 minutes will not be allowed except where necessary and only when requested several days in advance by the construction contractor. When these extended delays are anticipated, they will be advertised in advance using the local news media. They will be scheduled to avoid high traffic use periods such as weekends; morning and evening periods when people are travelling to and from work and school; or holidays such as Independence Day or Labor Day.

The construction contractor will be required to schedule construction operations so that at the end of each construction season and before the ski season begins, the roadway will be left in a condition that will allow safe and uninterrupted access to the Resort and surrounding residential areas through the winter.

Impacts resulting from the substantial excavation and embankment heights, particularly in the area of the improvement of the lower switchback, will be mitigated by the following:

- It is anticipated that in a significant portion of the excavation areas, rock will be encountered. In these areas, it may be feasible to construct steeper slopes which will substantially reduce the width and height of the excavations.

- In areas where high embankments are required, guardrail will be used and, where practical and feasible, steeper than standard slopes will be constructed using retaining wall or reinforced embankment slopes to significantly reduce heights and widths of embankments.

4.17. MAINTENANCE

4.17.1. Existing Conditions

Maintenance of the existing Big Mountain Road is conducted by both Flathead County and Winter Sports, Inc. The estimated total average maintenance cost per mile of paved roadway per year on the existing Big Mountain Road is approximately $21,500.

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[37]Jim Bond, Information Officer/Citizen Participation Advocate, Montana Department of Natural Resources and Conservation. Letter dated 21 January 1991.

4.17.2. Potential Impacts

Where roadway is constructed on new alignment, the existing roadway must remain to serve existing residences and to provide access for land owners. The following is a summary of the lengths of roadway and approximate yearly maintenance costs[38] that will result:

	Length of New Highway	Length of Existing Remaining Highway	Length of Highway Requiring Maintenance	Total Yearly Maintenance Cost
Alternative A	5.2 Miles	0.0 Miles	5.2 Miles	$111,800
Alternative A-1	4.8 Miles	1.7 Miles	6.5 Miles	$121,900
Alternative B-1	5.5 Miles	4.2 Miles	9.7 Miles	$164,450
No-Action	0.0 Miles	5.2 Miles	5.2 Miles	$111,800

4.17.3. Mitigation Measures

Implementation of a resort tax is under consideration for this area. Some of the proceeds of this tax may be used to help pay for maintenance of the Big Mountain Road. Winter Sports, Inc. (WSI), owner of the Resort, has responded in favor of this plan[39]. Representatives of the Resort have indicated that WSI currently assists with maintenance of the road, will continue to assist in the future and, if Alternative B-1 is constructed, will assist with the maintenance of a portion of the new roadway.

4.18. VISUAL

4.18.1. Existing Conditions

The proposed project alternatives lie on lower slopes of the Big Mountain. This area includes rolling hills and valleys that are mostly timber covered -- mainly coniferous with some deciduous trees. Existing man-made development in the project area includes the existing roadway, several residences located primarily along the first one-mile of the Big Mountain Road and the power sub-station. The existing roadway includes a few relatively high rock excavated areas mainly in the area of the upper switchback. The cleared ski slopes, buildings and ski lifts are visible above the project area.

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[38]It is estimated that maintenance costs similar to the existing roadway ($21,500/mile/year) will occur on the new roadway. It is also estimated that maintenance costs for existing portions of the Big Mountain Road that are bypassed by new alignments (and will therefore have much lower traffic volumes) will have a maintenance cost of approximately $11,000 per mile per year.

[39]Michael Collins, President, Winter Sports, Inc., letter dated 16 July 1992.

U.S. Forest Service lands that will be affected by Alternatives A and A-1 (Section 4.15 RIGHT-OF-WAY) are in Management Area 20[40]. The visual quality objective (VQO) for this management area is "modification". Visual landscape modification occurs when the management activity is visually stronger than the surrounding characteristic landscape. Such activities are usually noticeable because they are of different scale or more numerous than natural occurrences of a similar kind. They are designed to complement the form, line, color and texture of their surroundings but cannot be completely unnoticeable because of their inherent characteristics or those of the landscape.

Whitefish Lake, the City of Whitefish, northern portions of the Flathead Valley and distant mountain ranges are visible from portions of the existing roadway and from portions of proposed alternative alignments. Where not shielded by trees, visual quality from the roadway is considered very high.

Big Mountain, including lower portions where the proposed project is located, is generally visible from Whitefish Lake, the City of Whitefish and from northern portions of the Flathead Valley. The area is visible, from a distance, from U.S. Highway 93 and from Montana Highway 40. Ski slopes (cleared areas that are grass covered in the summer and snow covered in the winter) at the Resort are highly visible from most areas in the valley. The existing roadway is generally not visible from these areas with the exception of the rock excavation at the upper switchback. The view of the rock from these areas is from several miles, is not predominant and does not significantly affect the visual quality. As a comparison, it is estimated that the visible area of the existing roadway (consisting almost entirely of these rock excavations), from portions of Whitefish Lake, is less that 2% of the visible area of cleared ski slopes.

Those who view the existing roadway and will view the proposed project and those who will view the existing landscape from the project include:

- Local residents in the City of Whitefish, in northern Flathead Valley, along Flathead Lake, along the existing Big Mountain Road and in Ptarmigan Village.

- Recreationists and tourists visiting the Big Mountain Ski and Summer Resort, Whitefish Lake, area golf courses and other area attractions.

- Tourists passing through the area to visit Glacier National Park and regional attractions.

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[40]United States Department of Agriculture, Forest Service, Flathead National Forest, Forest Plan Flathead National Forest, December 1985.

4.18.2. Potential Impacts

The following summarizes features of each of the proposed alternatives that may affect the visual environment:

ITEM	NO-ACTION	A	A-1	B-1
Total Area of Pavement (Acres)	15	25	23	27
Total Area Disturbed by Construction (Acres)	n/a	88	78	86
Average Disturbed Width (Feet)	n/a	142	141	140
Approximate Maximum Excavation Depth (Feet)	100	100	95	50
Approximate Maximum Embankment Height (Feet)	40	50	60	50

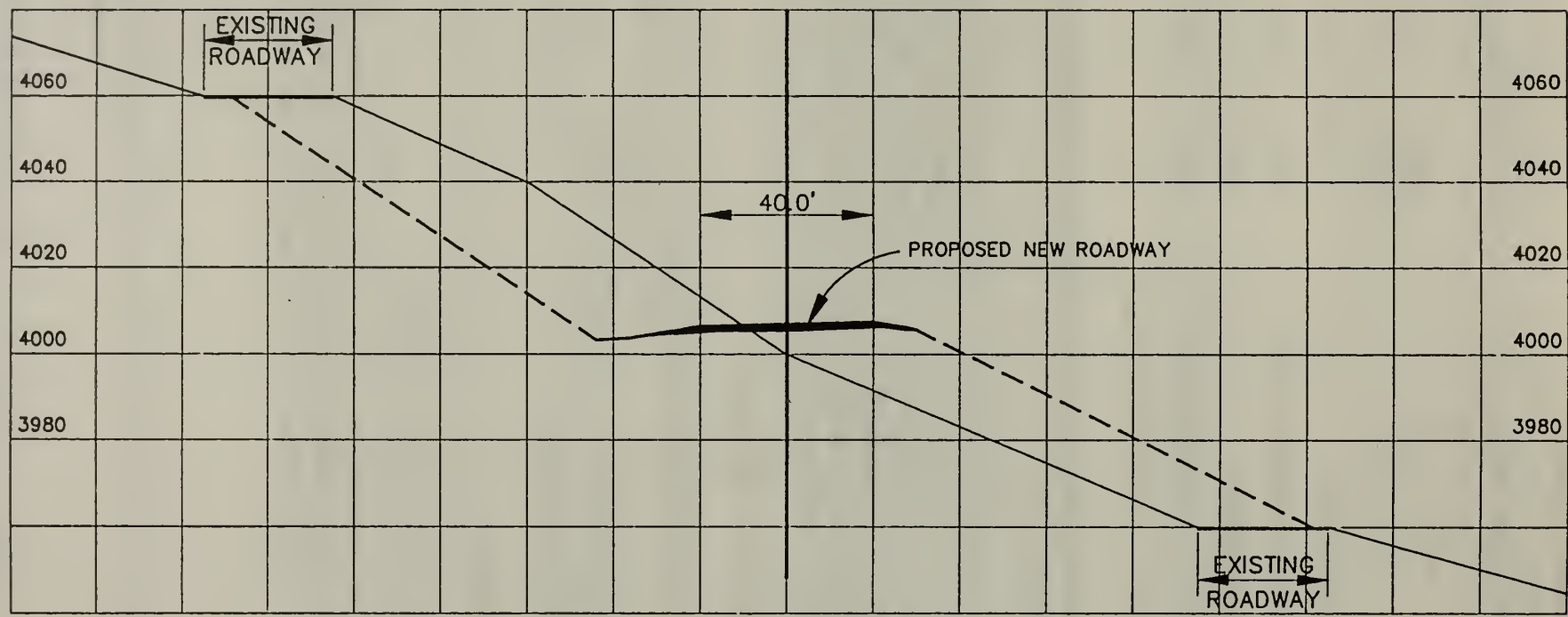
Examples of some of the larger cut and fill sections on Alternative A-1 and B-1 are illustrated on Figures 4-2 and 4-3.

The proposed new roadway will be wider (a 40 foot wide paved surface width compared with the existing 24 foot width) and will include flatter excavation and embankment slopes. Substantial timber removal will be required (Section 4.14.). Highway right-of-way area will increase (Section 4.15). These factors will increase the visibility of the roadway and may reduce the shielding effectiveness of existing forests -- more of the roadway may be visible from Whitefish Lake and other portions of the valley.

The view of the roadway will include:

- Excavation and embankment slopes.
- Pavement surface including painted striping.
- Roadway signing.
- Guardrails.
- Areas where timber is removed.

An important visual consideration will be the view of Big Mountain from the valley -- the Northern Flathead Valley including Whitefish Lake and the City of Whitefish. Concern has been expressed that new, larger cuts and fills may negatively affect the view of the mountain.

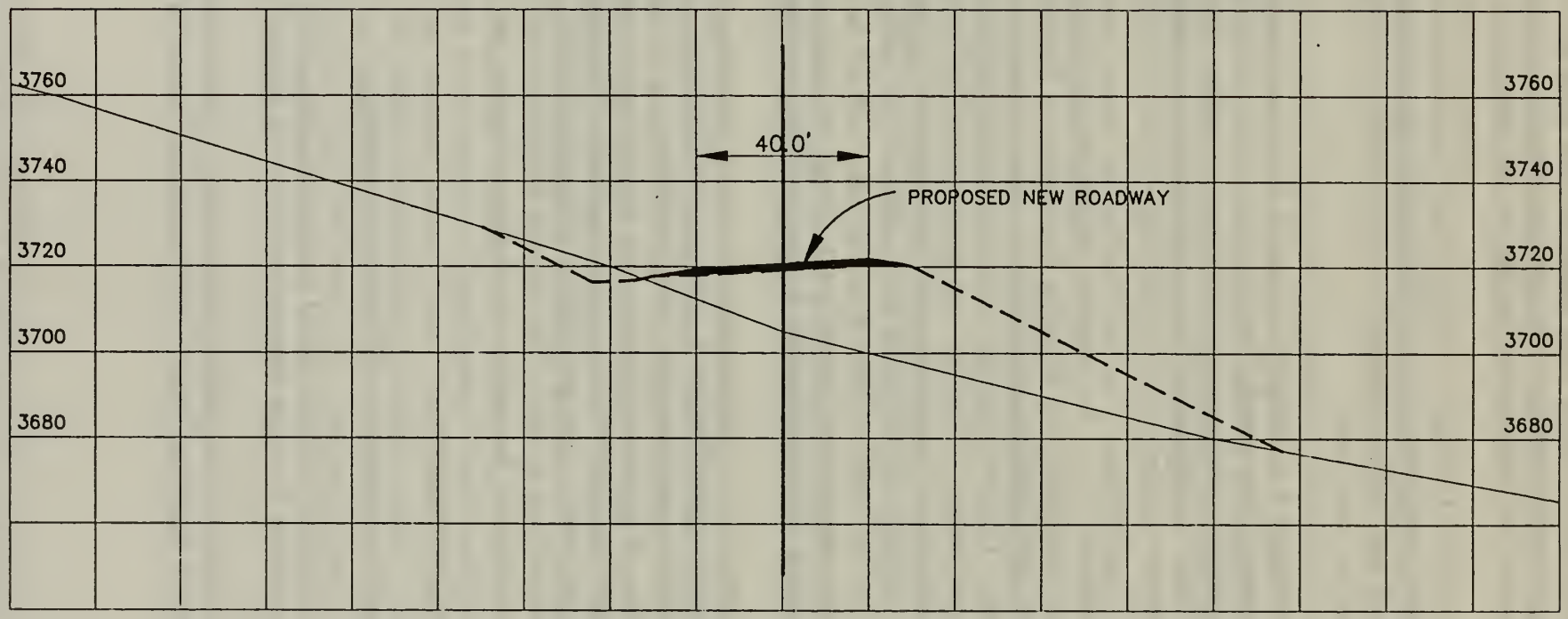


CROSS-SECTION AT 150+00, ALT. A-1

LOOKING EAST

SCALE: 1" = 40'

FIGURE 4-2



CROSS-SECTION AT 110+00, ALT. B-1

LOOKING EAST

SCALE: 1" = 40'

FIGURE 4-3

As with the current roadway, large trees shield the view from the valley to the roadway, but larger excavations and embankments on the existing roadway are visible and will be visible from the valley with each of the proposed alternatives, as described below:

- No-Action Alternative. The high rock excavations at the upper switchback are visible from portions of the valley. Existing excavation and embankment at the lower and middle switchbacks are not as high and steep and are shielded from view by large trees.

- Alternative A. Improving the curve at the lower switchback and widening the roadway in this area will require removal of trees and significant excavation and embankment that may be visible from the valley. The high rock excavations at the upper switchback will remain and may be increased to widen the roadway and improve the curve -- a corresponding increase in visibility may also occur.

- Alternative A-1. As indicated for Alternative A, improving the curve at the lower switchback and widening the roadway in this area will require removal of trees and significant excavation and embankment that may be visible from the valley. The new alignment, from approximate Station 140+00 to Station 170+00 (approximately 0.6 miles), will include substantial excavation and embankment. A large part of these slopes will be shielded by existing trees but some parts of the roadway will be visible from portions of the valley. It is estimated that the area of the roadway visible from the valley will still be only 2 to 4 percent of the visible area of the ski slopes at the Resort. Portions of this area of the roadway may also be visible from the Ptarmigan Village residential area.

- Alternative B-1. The new alignment, from approximate Station 65+00 to Station 125+00 (approximately 1.1 miles), will ascend up a hillside and will require substantial excavation and embankment that may be visible from portions of the valley. A portion of this area has recently been logged so large trees are not available to shield the view. The remainder of the alignment for Alternative B-1 lies in lower valleys and should not be visible from most of the valley. It is estimated that the area of the roadway visible from the valley will still be only 2 to 4 percent of the visible area of the ski slopes at the Resort.

4.18.3. Mitigation Measures

Mitigation of negative visual impacts will include the following:

- Retention of trees and natural vegetation except where removal is required for construction, for sight distance restrictions or for other safety requirements.

- Construction of the roadway with smooth, rounded excavation and embankment slopes to match and blend in with the adjacent natural terrain as much as possible.

- Where rock cuts are required, terracing, benching and other methods will be used to allow re-establishment of vegetation and to, as much as possible, give the rock faces a natural appearance.

- Where excavation and embankment slopes are not high, they will be constructed as flat as possible to allow better re-establishment of natural vegetation.

- Topsoil will be placed on all new excavation and embankment slopes to facilitate re-establishment of natural vegetation. Slopes will be seeded with plant varieties native to the area. Wherever practical, and where noxious weeds do not occur, existing topsoil will be salvaged in areas of road construction and reused -- this topsoil will contain natural seeds and organic matter.

- Where steeper slopes are required, the newly seeded topsoil will be protect- ed with mulch or protective mats.

- Erosion control measures will be constructed and maintained to prevent related negative visual impacts.

- Noxious weeds will be controlled as discussed in 4.14 AGRICULTURAL LANDS.

- Design of horizontal and vertical alignments will follow and blend in with the existing terrain as much as possible while still meeting design standards.

- It may be desirable to secure an easement along some sections of the roadway to provide a buffer strip to preserve trees outside of and adjacent to the right-of-way. This will ensure that trees which may currently shield undesirable views of roadway cuts and fills are not removed by development or logging. This may be particularly desirable on Alternative A-1 between Stations 140+00 and 170+00 and on Alternative B-1 between Stations 65+00 and 125+00.

Alternatives A, A-1 and No-Action, the only alternatives on U.S. Forest Service lands, with the mitigation measures listed above, meet the "modification" visual management objective for Management Area 20 of the Flathead National Forest. The proposed roadway will be different and, in some areas, will be visually stronger than surrounding terrain. The roadway will be noticeable because it is of a different scale and shape than surrounding terrain. It will be designed to conform to and compliment the form, line, color and texture of the surroundings, but will not be completely unnoticeable because of its inherent characteristics compared with those of the surrounding landscape.

4.19. PARKS AND RECREATION

4.19.1. Existing Conditions

The Holbrook Overlook and Picnic Area is located on U.S. Forest Service land near the existing alignment and left of Station 196+00 of proposed Alternative A-1. It consists of a small, gravel surfaced parking area, an outhouse, 5 to 6 picnic tables and several short walking trails. The area is used commonly for the view it provides of the northern Flathead Valley and Whitefish Lake. It is used for picnicking, but no overnight camping.

4.19.2. Potential Impacts

Alternative A will not adversely impact the area -- it is likely, if the sharp curve near the overlook is improved, that Alternative A will move slightly farther from the area than the existing alignment.

Alternative A-1 will not impact the area. The centerline of the proposed new roadway will pass approximately 200 feet northeast of the area. This is approximately the same distance as the existing roadway is from the site. The proposed new roadway will pass through a portion of the upper end of the access road that leads to the site and a portion of the access road will need to be revised to match the new roadway. None of the areas occupied by the parking area, the outhouse, the picnic tables or the trails will be affected by the proposed Alternative A-1 and the existing uses at the site will not change.

Alternative B-1 will have no impact on the Holbrook Overlook/Picnic Area except that traffic volumes adjacent to the site on the existing roadway will probably decrease substantially.

There have been no other parks or recreation areas identified that will be affected by the proposed project.

No Section 4(f) or 6(f) properties have been identified that will be affected by this project.

The No-Action Alternative will have no impact on parks or recreation in the project area.

4.20. HAZARDOUS MATERIALS

4.20.1. Existing Conditions

No existing hazardous waste sites have been identified that will be affected by any of the alternatives for the proposed project.

The existing roadway includes sharp horizontal curves, steep grades and a narrow pavement width which decrease safety and increase the possibility that fuel trucks or other vehicles carrying hazardous materials to the Big Mountain area may be involved in an accident and resulting spill. The existing roadway does not cross or parallel any existing streams or other water bodies.

4.20.2. Potential Impacts

The construction of Alternatives A, A-1 and B-1 will provide a wider roadway with better sight distance, improved grades and improved horizontal alignment. The resulting highway facility should be substantially safer for trucks and other heavy vehicles carrying fuels or other potentially hazardous materials to and from the Resort. Alternative A will closely follow the existing alignment and will not expand the area currently exposed to the possibility of hazardous material spills from highway transportation sources. Alternative A-1 follows a new alignment for approximately 1.2 miles, expanding the area of potential hazardous materials contamination from highway transportation sources. There are no streams or other particularly sensitive receptors in the area of the new alignment for Alternative A-1. Alternative B-1 will be constructed on a new alignment for approximately 4.3 miles, substantially expanding the area of potential hazardous materials contamination from highway transportation sources. The new Alternative B-1 alignment will cross Haskill Creek, First Creek and several other small streams (Section 4.7. CHANNEL MODIFICATIONS).

Material removed from the roadway by sweeping during construction will be disposed of in an approved Class 2 land fill.

Where the existing asphalt pavement does not remain and become a part of the new roadway, it will be removed and disposed of in one of the following ways:

- Placed within the proposed new embankment sections of the roadway, above high ground water tables and two to three feet below the new ground or roadway surface,

- Recycled by the Flathead County Road Department,

- Placed in an approved, Class 2 land fill.

Slash and stumps remaining after removal of timber from the proposed new construction area will be disposed of in an approved Class 3 land fill.

The No-Action Alternative will not expand the area currently exposed to potential hazardous materials contamination. It will not provide highway safety improvements and will do nothing to reduce the risk of accidents with trucks hauling fuels or other hazardous materials.

4.20.3. Mitigation Measures

Use and application of hazardous construction materials must be carefully planned, implemented and monitored. A plan for runon control for hazardous materials at construction sites is necessary and will be coordinated with and approved by the Montana Department of Health and Environmental Science, Water Quality Bureau.

5. COMMENTS, COORDINATION AND ISSUES

5.1. COMMENTS AND COORDINATION

On 08 January 1991, a letter of intent was sent to federal, state and local agencies and affected private organizations. The letter of intent described the proposed project and indicated that an environmental assessment (EA) is being prepared. Comments and information were requested which would be relevant to this project.

A public scoping meeting was held on 20 February 1991 in the Community Room of the North Valley Hospital in Whitefish, Montana. The purpose of the meeting was to present the proposed project to the public, explain work completed to-date and future work, explain the environmental review process and to solicit public comment on the alternatives and environmental impacts. Approximately 125 individuals attended the meeting. A summary of this meeting is included in the Appendix.

A second public scoping meeting was held on 06 August 1991, also in the Community Room of the North Valley Hospital in Whitefish, Montana. The purpose of this meeting was to explain work completed to-date, the environmental review process and work to be completed in the future. The meeting was also to receive public comment on which alternatives are most important and should be considered in detail in this environmental document. Public comment was also requested on important environmental impacts and issues that should be addressed in this environmental document. The meeting was attended by 100 to 110 people. A summary of this meeting is included in the Appendix.

The proposed project and the preparation of this environmental assessment have been coordinated with the Flathead National Forest. Representatives of that agency have reviewed preliminary copies of this EA and provided comments. These comments are incorporated in this document. This coordination is necessary to ensure that, in addition to meeting requirements of the National Environmental Policy Act, the document meets requirements and objectives of the U.S. Forest Service (USFS), the National Forest Management Act and the Flathead National Forest Plan. This is necessary, in part, because some of the proposed project lies within and will require right-of-way from public lands administered by the USFS. It is intended that this EA be suitable for adoption by the USFS as part of that agency's decision making process.

A third public scoping meeting was held on 07 October 1992, also in the Community Room of the North Valley Hospital in Whitefish, Montana. The purpose of this meeting was to discuss preliminary findings of environmental studies and preliminary design completed for the proposed alternatives for the Big Mountain Road Project. A 6 page summary of this environmental assessment was distributed to participants at the meeting and public comments were requested and received. The meeting was attended by 90 to 100 people. A summary of this meeting is included in the Appendix.

The Flathead County Board of Commissioners, meeting in regular session on December 2, 1992, selected Alternative A-1 as the preferred alternative for the proposed Big Mountain Road Project.

After Alternative A-1 was selected as the preferred alternative, the EA was completed and made available to the public and local, state and federal agencies. A "Notice of Availability of an Environmental Assessment and Notice of a Location and Design Public Hearing" was published in the Whitefish Pilot on 04 November 1993 and on 02 December 1993. The notice was also sent to all individuals on the project mailing list (over 300 agencies or individuals who may be affected by or have indicated an interest in the project) in October 1993. The EA indicated that Alternative A-1 had been selected as the preferred alternative and explained the reasons why. A copy of the EA was sent to all who requested it.

The location and design public hearing was held on 07 December 1993 in the Community Room of the North Valley Hospital in Whitefish, Montana. The purpose of the hearing was to discuss the EA and the location and design of the proposed project. Approximately 28 individuals attended the hearing. A summary of the meeting is included in the Appendix.

Comments received in response to the distribution of the EA and as a result of the public hearing have been evaluated and incorporated in this updated EA. Where appropriate, clarifications or responses are included.

It has been determined, by the Federal Highway Administration (FHWA), that the preferred alternative will not create significant adverse environmental impacts, so a finding of no significant impact (FONSI) has been prepared and signed by FHWA.

Written comments from the following local, state or federal agencies have been received and are included in the appendix of this document:

City of Whitefish
Whitefish, MT

U.S. Department of the Interior
Fish and Wildlife Service
Helena, MT

Montana Department of State Lands
Kalispell, MT

Flathead Regional Development Office
Kalispell, MT

Department of the Army
Corps of Engineers
Omaha, NE

Flathead National Forest
Talley Lake Ranger District
Whitefish, Montana

Department of Health and
Environmental Sciences
Air Quality Bureau
Helena, MT

Department of Health and
Environmental Sciences
Water Quality Bureau
Helena, MT

Department of Health and
Environmental Sciences
Solid and Hazardous Waste Bureau
Helena, MT

Montana Department of Fish,
Wildlife and Parks
Parks Division
Helena, MT

Montana Department of Fish,
Wildlife and Parks
Fisheries Division
Kalispell, MT

U.S. Department of Interior
Bureau of Land Management
Butte District Office
Butte, MT

Montana Department of Natural
Resources & Conservation
Helena, MT

State Historic Preservation Office
Montana Historical Society
Helena, MT

5.2. ISSUES

The following summarizes issues that have been identified during the public scoping process and, where applicable, indicates where they are addressed in this environmental assessment:

1. A wider roadway should be considered to provide for emergency stopping, snow removal, safety of errant or out-of-control vehicles, pedestrians and bicyclists (1. and 2.1.).

2. A 32 foot wide roadway, instead of the proposed 40 foot wide roadway, should be considered to reduce cost and environmental impacts.

3. Representatives of transit companies have indicated that B-1 would have the best alignment and grades for buses and that road design should include climbing lanes where feasible (1., 2.1. and 3.2.6.).

4. Construct pullouts for slower moving vehicles, particularly buses (1.).

5. It will be important to eliminate the severe switchbacks on the existing alignment to improve safety and driving comfort (2.1.).

6. The sharp switchbacks and the steep grades create difficulty for garbage collection at homes along the road and at the Resort. Improvements in the safety and driveability of the road are needed (2.1.).

7. Alternative B-1 will provide the fewest sharp horizontal curves, the best grades and will generally be the safest and most comfortable to drive (2.1.).

8. Several participants in public scoping meetings have indicated that they feel Alternative B-1 will provide the best long-term solution to transportation needs because it provides the best alignment and grades and the safest, most comfortable roadway. Alternatives A and A-1 are "band-aid" alternatives. The alternative selected should serve well into the future (2.1.).

9. Buses have considerable difficulty getting up the existing roadway during the winter (2.1 and 3.2.6.).

10. The existing alignment and grades near the power substation near Station 60+00 are poor and should be improved with the proposed project (2.1.).

11. Several participants in public scoping meetings have indicated that they feel Alternative B-1 will be the safest (2.1 and 2.5.)

12. Several participants in public scoping meetings have indicated that a wider, straighter road might encourage drivers to go faster and thereby decrease safety (2.1. and 2.5.).

13. With Alternative B-1, it will be easier to meet design standards (2.1.).

14. The Big Mountain Winter and Summer Resort, along with the ski industry in general and related and support businesses and services, is an important part of the economy of the City of Whitefish and Flathead County. Improvements to the Big Mountain Road will help support that industry (2.7.1. and 4.1.).

15. Consideration should be given to also improving the road (Wisconsin Avenue/East Lakeshore Drive) from the Whitefish Railroad Bridge to the Big Mountain road. This would complete the last link between the City of Whitefish and the Big Mountain (2.9.).

16. Alternative B-1 will create an intersection with the existing alignment near the power substation that may be unsafe without proper planning and design (3.1.4.).

17. Concern has been expressed concerning how Alternative B-1 will affect the proposed Kinnikinnik Development (3.1.4.).

18. Consider, instead of beginning Alternative B-1 at the existing roadway near the power substation, placing the first one or two miles on Murdock Lane (3.2.1.).

19. Alternative E should be given serious consideration because it will have less switchbacks and higher driveable speeds and may provide an economic boost for the North Valley (3.2.4.).

20. Alternative E crosses a portion of state land and the right-of-way required would put a considerable amount of timber land out production (3.2.4.).

21. One-way routing should be considered where traffic in one direction would remain on the existing roadway and traffic in the other direction would be placed on a new roadway (3.2.5.).

22. Suggestions for constructing a tram or a cog railway to replace motor vehicle travel to the Big Mountain have been received (3.2.6).

23. Public transportation should be planned for, provided for and encouraged (3.2.6.).

24. Several participants at the third public scoping meeting stressed the importance of encouraging and supporting mass transit (busing between Whitefish and the Resort). Whatever alternative is selected should support and incorporate mass transit. Buses will help reduce air pollution and parking requirements at the Resort (3.2.6.).

25. Bus service is currently provided between the Resort and Whitefish and other destinations. Ridership is low and some routes and schedules have been canceled because of low use (3.2.6.).

26. Can bus systems or other mass transit be funded under provisions of the Intermodal Surface Transportation Efficiency Act of 1991 (3.2.6.)?

27. If Alternative B-1 or another parallel highway is not constructed, consideration should be given to providing emergency access along existing private roads through the area (3.2.7.).

28. There is currently only one road into the Big Mountain area -- this could be a problem if large wildfires occur. There would be difficulty evacuating people and accessing the area with fire fighting equipment and crews (2.6., 3.2.7. and 4.10.).

29. The purpose for the project, how it will be funded and whether the project is being planned mainly to benefit a private business has been questioned (1., 2. and 4.1.).

30. A land owner has indicated that improving the lower switchback at Station 126+00 will adversely affect adjacent land by severing existing accesses, requiring a substantial amount of additional right-of-way, rendering some remaining land useless and requiring the removal of mature trees (3.4.).

31. A better, safer road will promote and increase tourism which will provide jobs and a beneficial impact on the Flathead Valley (4.1.).

32. Representatives of the Resort and other businesses have indicated that they are very concerned about lost business during the summer during construction of the roadway as a result of substantial inconvenience and delays that will be experienced if Alternative A or A-1 is constructed (4.1. and 4.16.).

33. Public comment has been received indicating that Alternative B-1 may create more roadway length and more overall air pollution from dust resulting from winter sanding (4.3.).

34. The design of the project should insure that the 100-year flood water surface elevation of any stream affected is not increased more than one foot (no increase would be desirable) relative to pre-project conditions (4.6.).

35. The City of Whitefish and others have indicated that Alternative B-1 may adversely affect the City of Whitefish watershed (4.8.).

36. Alternative B-1 will cross and will run parallel with existing streams in some areas. Sedimentation resulting from construction and from sanding during the winter is a concern, particularly since the area is part of a watershed for the City of Whitefish (4.8.).

37. With the substantial excavation and embankment required with any of the proposed alternatives, erosion (during and following construction) is an important concern and should be carefully addressed (4.8.).

38. Participants at public scoping meetings have noted that the City of Whitefish currently does not use the First Creek Watershed (the watershed in which Alternative B-1 would be constructed) and that most of the Big Mountain Resort facilities are currently located in the watershed (4.8.).

39. A wetland inventory and impact assessment should be completed and any mitigation needed should be in accordance with the 1989 "Interagency Memorandum of Understanding: Management and Mitigation of Highway Construction Impacts to Wetlands in the State of Montana" (4.9.).

40. Construction of Alternative B-1 will expand growth into an area where it may not be desirable (4.10.).

41. Additional development, encouraged by some of the proposed alternatives, may increase the potential for fires starting and, if they do start, will increase the potential for damage to humans, property, watershed, wildlife habitat, visual resources, timber and other resources (4.10.).

42. If Alternative B-1 is constructed, a conservation easement should be considered that prohibits or controls development in sensitive areas (4.10.).

43. In areas where additional development is encouraged by introducing a new roadway into a relatively undeveloped area, the impacts of resulting additional sewage treatment systems should be recognized (4.10.).

44. Several participants at public scoping meetings indicated they consider the Haskill Basin area to be one of last undeveloped, natural and wilderness-like areas that is easily accessible to residents of the City of Whitefish. Construction of Alternative B-1 may diminish these values (4.10.).

45. Several participants in public scoping meetings have noted that the Haskill Basin has been logged over the years and is crisscrossed with logging roads. They have expressed the opinion that the area is not as pristine as some people say it is (4.10. and 4.18.). Most of the area has been or will be logged.

46. The location and number of approaches to the proposed new roadway should be carefully controlled and regulated to avoid unsafe conditions and degradation of the carrying capacity of highway (4.10.).

47. Individuals have noted that construction of Alternative B-1 will involve timberlands. Alternative A or A-1 will affect many small residential parcels (4.10. and 4.15.).

48. The Haskill Basin is an important area for wildlife, recreation and esthetics. Concern has been expressed over any roadway being constructed in this area (4.12., 4.13. and 4.18.).

49. Concern has been expressed that a new roadway, in a new area, particularly Alternative B-1, will adversely affect the Grizzly Bear which is classified as a threatened species in Montana (4.12.4.).

50. The U.S. Fish and Wildlife Service (USFWS) has indicated that the threatened and endangered species that occur or may occur in the general project area include the grizzly bear, gray wolf, bald eagle and peregrine falcon. If it is determined that any of these species may be affected, it will be necessary for the Federal Highway Administration to initiate formal consultation with the USFWS. (4.12.).

51. Any overhead powerlines that require relocation as a result of this project should be properly constructed to avoid electrocution hazards for bald eagles, peregrine falcons and other raptors (4.12.1., 4.12.3. and 4.13.1.).

52. Habitat protection and maintaining suitable areas for the grizzly bear may not be practical and feasible on the private land in the area of proposed Alternative B-1. It is surrounded by residential and resort development and may not be a desirable area for the bear (4.12.4.).

53. The propriety of maintaining the area along Alternative B-1 as grizzly bear habitat has been questioned due to its proximity to already established residential and recreational areas (4.12.4.).

54. In the environmental assessment, consider not only threatened and endangered species but also other wildlife species (4.13.1.).

55. Trees should be removed only as required to construct the proposed roadway and to provide adequate safety (4.14.).

56. Alternative B-1 will be located on private land that is currently logged and will continue to be logged in the future. Concern has been expressed that conflicts and potential resulting accidents between recreational vehicles and logging trucks and equipment will occur (4.14.).

57. Because land along Alternatives A and A-1 is more subdivided and more developed, it may be more difficult and expensive to acquire right-of-way than along Alternative B-1 where land is not subdivided or developed (4.15.).

58. With Alternative B-1, because of the large tracts of land involved, there will be fewer property owners affected (4.15.). It may be possible to negotiate and purchase land or obtain an easement for a buffer strip to prohibit development adjacent to the highway which would help mitigate visual and other impacts (4.18.).

59. Construction of Alternative A or A-1 will make the maximum use of the existing roadbed and right-of-way (4.16.).

60. Construction costs of each of the proposed alternatives should be identified and compared (4.16.).

61. Access to the Big Mountain area during construction, and resulting inconvenience, delays, possible detours and road closures are a concern (4.16.).

62. Alternative B-1, because a larger part of it will be constructed on new alignment, will not affect traffic during construction as much as other alternatives (4.16.).

63. The roadway, if Alternative A or A-1 is constructed, may not be available to hikers, bicyclists during construction (4.16.).

64. If Alternative B-1 is constructed, there will be two roads that will require maintenance to the Big Mountain. Maintenance costs will increase (4.17.).

65. If Alternative A-1 or B-1 is constructed, the existing remaining highway should remain and be maintained to provide access to adjacent private property and existing residences (4.17.).

66. Alternative B-1 will create the most visual impact because it will introduce a highway into an area that is relatively undeveloped (4.18.).

67. Alternative A and A-1 will be the most visible from Whitefish Lake, the City of Whitefish and other portions of the Flathead Valley. Alternative B-1 will not because it follows a lower valley (4.18.).

68. Existing cut slopes at the large switchbacks on the existing alignment are visible from the valley. Any additional excavation in these steep areas will create adverse visual impacts (4.18.).

69. Any visual impacts resulting from the construction of Alternatives A or A-1 will be minor compared with impacts that have already occurred with the construction of the ski slopes at the Resort (4.18.).

70. With Alternative B-1, and its proximity to Haskill Creek, concern has been expressed over the potential for hazardous material spills (4.20.).

71. The environmental assessment should indicate how public comments are recorded and considered and how the decision on the preferred alternative is made (5.1. and 7. APPENDIX).

72. Individuals have indicated that preparation of environmental and engineering studies and evaluations should be completed by professionals totally disinterested in and financially uninvolved in the development occurring in the Flathead Valley (6.).

73. Individuals have noted that development may occur in the area of Alternative B-1 regardless of whether that alternative is implemented. Access to the area would then be provided by roads constructed by private entities which, because they do not use public funds, may require fewer environmental reviews and regulations.

74. Individuals have expressed opinions that the taxes generated and economic benefits to be gained from development at the Resort and related businesses and developments will more than offset the cost of building and maintaining the road.

6. LIST OF PREPARERS

This environmental assessment was prepared by Morrison-Maierle/CSSA under contract to Flathead County in cooperation with the Montana Department of Transportation and the Federal Highway Administration. The primary agencies and the individuals involved include the following:

FLATHEAD COUNTY COMMISSION

Earl W. Bennett, Administrative Assistant

MONTANA DEPARTMENT OF TRANSPORTATION

R. Doug Morgan, Consultant Design Engineer, Consultant Design Section

Gordon Stockstad, Acting Chief, Environmental and Hazardous Waste Bureau

FEDERAL HIGHWAY ADMINISTRATION

Dale W. Paulson, Environment and Project Development Engineer

MORRISON-MAIERLE/CSSA

Brad Peterson, Project Manager

Terrence Richmond, Kalispell Branch Manager

7. APPENDIX - COMMENTS AND INFORMATION RECEIVED

The following information is included on subsequent pages in this appendix:

APPENDIX A	Summaries of the three public scoping meetings that have been held for the proposed project.
APPENDIX B	Letters received from local, state and federal agencies.
APPENDIX C	A summary of the location and design public hearing.
APPENDIX D	Comments received in response to the environmental assessment and the public hearing.

There is considerable correspondence from public scoping participants that was received prior to the distribution of the environmental assessment that is too voluminous to include with this document. Issues and concerns expressed in this correspondance are summarized in Section 5.2. ISSUES and copies of this correspondence are available for review at the following locations:

Flathead County Board of Commissioners
800 South Main Street
Kalispell, MT

Morrison-Maierle/CSSA
221 Parkway Drive
Kalispell, MT

Morrison-Maierle/CSSA
910 Helena Avenue
Helena, MT

Environmental and Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT

APPENDIX A - SCOPING MEETING SUMMARIES

Following pages include summaries of the three public scoping meetings that have been held for the proposed project.

Where applicable, the section numbers where the comments are addressed in this document are indicated similar to this example:

2.1., 3.2.6., 4.19.

BIG MOUNTAIN ROAD

PUBLIC SCOPING MEETING

February 20, 1991

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A Public Scoping Meeting was held on February 20, 1991 in the Community Room of the North Valley Hospital, Whitefish, Montana, concerning the proposed reconstruction of the Big Mountain Road, RS 487-1(5)3. The following is a summary of that meeting:

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The meeting was opened at 7:30 P.M. by Brad Peterson, P.E. and Terry Richmond, P.E., of Morrison-Maierle/CSSA. Representatives from Morrison-Maierle/CSSA, the Montana Department of Highways, Federal Highway Administration and various County offices were introduced.

The purpose of the meeting was to present the proposed project to the public, explain work completed to date and future work, the environmental review process, solicit public comment on the alternatives and environmental impacts.

Two letters from the public were read at this time.

Letter #1 from Margaret Murdock opposed Alternatives B, C, D and E because of the proximity of the road to Haskill Creek and the long range effects to the water. *3.1., 3.2.*

Letter #2 was received from Dawn Perrine. She suggested constructing a tram or gondola type system and also asked if Federal funding would cover such a project. *3.2.6.*

Public Comment:

Greg Acton, City of Whitefish Water Utilities, was opposed to alternatives B, C, D and E as they would have a direct effect on the City water shed. Another concern was increased traffic and increased road maintenance. *4.8.*

Wayne Saurey strongly supported Perrine's letter. Asked if public transportation would qualify for government funding. *3.2.6.*

Dave Jamieson stated that with all the development, one road in and out was a problem if there were to be a wild fire. Suggested alternate route for fire control and evacuation purposes. *2.6., 3.2.7., 4.10.*

Mike DeGrosky, Montana Department of State Lands, concerns: 1) high wild fire risk, 2) alternative E bisects State school trust section, 3) would the engineering firm consider compensation to the trust for lost resources, 4) effects of road on increased water yield and, 5) managing access to adjacent property owners. *2.6., 3.2.7., 4.10.*

Jerry Hanson, Whitefish City Council, does not want to see the City water shed jeopardized and felt Alternative D and E would be a total disaster to the economic impact of the City. Personal preference A or A1. *4.8.*

Fritz Royer, Whitefish Downtown Association, opposed to D and E due to curves, inadequate bridges and railroad crossings, Alternative C has inadequate road and goes by reservoir. Suggested Alternative A. *3.2.*

Kathy Kramer, opposed to B, C, D and E. Does not want a road in an area that is a grizzly habitat. Suggested a tree being planted somewhere on the mountain for every tree that is cut down. *1., 3.2., 4.12.*

Gordon Ash opposes D and E because of threatening wildlife species and water questions, supports further evaluation of tram and cog, hold use within the existing corridor. *4.12, 4.13.*

Joe Bennett asked where the funding would come from for alternatives other than a new road, would this be funded by Winter Sports, Inc.? Concerned about water quality, was for Alternative A1. *1., 4.8.*

Laura Nugent was concerned about the width of road (right-of-way) put on a 30° slope, felt it would look monstrous. Opposed to B, D and E; for reconstructing existing road and encouraging public transportation and possible funding. *3.2.6., 4.15, 4.18.*

Ron Buentemeier, Stoltze Land and Lumber Company, opposed to B, C, D and E (see letter). Concerns were roads passing through Stoltze land, potential accidents between recreational vehicles and log haulers. Was for Alternative A. *4.10.*

Buck Love for Alternative A or A1 due to visual impact to tourists and the fact that there is already an existing road bed and right-of-way. *4.18.*

Rick Kramer opposed to D and E because of wildlife and water. No B and C because of grade and curvature. Strongly urged A or A1 be adopted. Was against building a new road simply for protecting the commercial development of Winter Sports; new road does not justify the environmental impacts present. *2., 4.8., 4.12., 4.13.*

Bill Jamieson felt Big Mountain can take care of themselves and should help build the road. *1.*

Mike Collins, President, Winter Sports, said they were going back to their own drawing board and collectively come to the best decision to benefit everyone. Will study and make recommendations.

John Horine President, Columbia Falls Chamber of Commerce, for repairing existing road, put dollars into current road and putting in the right width to begin with. Tram good idea to consider. *3.2.6.*

Howard Stockwell's, main concern was if the taxpayers were going to have to pay for this, felt two roads were to costly to maintain, public should be aware of cost. *1.*

Greg Goode stated that tourists have no place to turn off and that the width of the road should be considered. *1., 2.1.*

Norm Kurtz asked if the road could be closed so everybody had to ride the tram. *3.2.6.*

Roy Duff said that the Big Mountain Road was the third priority in the County right now, the first being the viaduct and the second Foys Lake, but the big hold up is money.

Sharon Stratton, Flathead County Commissioner, was for Alternative A of A1. Asked where all the traffic was going to park at the top. *3.1.*

A show of hands were taken for each Alternative.

Alternative A and A1 had strong support. No show of support for Alternatives B, B1, C, D and E.

Support was shown for a tram and cog system and improved public transportation.

Approximately 125 people were in attendance.

99 individuals recorded their name and address which will be added to the Master Mailing List.

Meeting adjourned at 9:30 P.M.

BIG MOUNTAIN ROAD

PUBLIC SCOPING MEETING

August 6, 1991

==========

A Public Scoping Meeting was held on August 6, 1991 in the Community Room of the North Valley Hospital, Whitefish, Montana, concerning the proposed reconstruction of the Big Mountain Road, RS 487-1(5)3. The following is a summary of that meeting:

==========

The meeting was opened at 7:30 P.M. by Terry Richmond, P.E. and Brad Peterson, P.E. of Morrison-Maierle/CSSA who explained the purpose of the meeting, the work completed to date and future work, the environmental review process and environmental impacts. The following three alternatives were explained in detail:

Alternative A - Existing alignment with minor improvements to improve alignment and grade.

Alternative A1 - Same as A with approximately 1.6 miles of new alignment to eliminate the two upper sharp switchbacks.

Alternative B1 - Located east of the current roadway and passing through upper portions of the Haskill Basin.

Public Comment:

Greg Acton, City of Whitefish Water Utilities, favored Alternative A, was somewhat opposed to B and opposed to all other Alternatives. He asked that the impacts on the water quality be addressed both short term and long term, and the impacts a road may have on the water shed be addressed, e.g., sand and gravel on roadway that could wash into the stream. *4.8.*

A letter from Margaret Murdock was read at this time. She is in favor of Alternative A-1 since it would eliminate two severe switchbacks, involves the least construction and is furthest removed from Haskill Basin. She requested curtailment of any construction that would have a negative impact on the water supply for the City of Whitefish. *2.1., 4.8.*

Mike DeGrosky, Montana Department of State Lands, stated that the Big Mountain is at high risk for wildfire which in turn could lead to loss of private property and life. He supported the concept of a second route off the mountain as an evacuation route; supported road design that would limit road grades to less than 8% and eliminate

short radius switchbacks. He felt that Alternative B-1 would serve their purposes and felt that it would be even better if it tied into the existing timber access road systems already established, which would minimize the amount of road construction/clearing. *2.6., 3.2.7., 4.10.*

Craig Moore said that he had not heard any actual cost figures on the project and had heard that it was to be 100% financed by the Flathead County taxpayers. *1.*

Terry Richmond, MM/CSSA, explained that the construction cost would range from $4 to $5 million dollars and it would be funded in part by Federal and State funding as it is a designated secondary highway which makes it eligible for both.

Greg Goode asked what months the construction season consisted of and how much weight it carries in a project like this. *4.16.*

Brad Peterson, the construction season is determined by when the snow leaves in spring until late fall (October or November).

Kathy Kramer, Whitefish resident, was concerned about the habitat of animals and their migratory habits, that Chicken Ridge has been irreparably damaged by roads and development and for these reasons B-1 should not be considered at all. Supported A. *4.12., 4.13.*

Mike Collins, President of Winter Sports, stated that three years ago there was talk of improvement of the road. Winter Sports identified goals which must meet safety demands, provide capacity for future growth, minimize environmental impacts and minimize economic impacts. Since the first hearing they have spent a considerable amount of time and dollars evaluating routes. The public was invited to walk the area. The area is not as pristine as people think it is. Believes that Alternative B1 is best, but will accept other alternatives. Supports conservation easement along side of B1 route. He said that they would also look at a cog or tram system, but that it is very cost prohibitive. There is usually an on-going operational subsidy. That neither of those systems address all the needs of an alpine village. There would still need to be additional road systems, i.e., service vehicles, delivery vehicles, customer baggage, etc. *2., 3.2.6., 4.10.*

A letter received from Stephen and Helene Richards was read at this time. They are against B1 since it creates an intersection situation that violates the principal reason for developing an alternate route. Questioned why B1 route was different for August meeting than it was for June meeting. Terry Richmond explained to the audience that Morrison-Maierle/CSSA attempted to address routing concerns between June and August for the Richards.

Mary Moore, asked if the alternative routes would be Federally funded and if all three routes were considered alternative routes. She also asked if estimated costs for both of the routes would be

the same, is opposed to extended growth in the valley, believes the switchbacks on the road are a problem but that they slow down the traffic. Was for Alternative A. *1., 4.16., 2.1.*

Rick Kramer, felt that B1 would create more problems and that opening up another area is going to create more of a hazard as far as fire prevention, is concerned about water quality in Haskill drainage, potential impacts for hazardous materials spills into the creek. Would like to see Alternative B1 dropped from any further assessment and that the environmental review process proceed with looking at Alternatives A and A1. *4.8., 4.10., 4.20.*

Jeff Cornell, real estate broker, disagrees that Alternative B1 would be a real estate dream, there presently are numerous subdivisions on the mountain, is concerned about the growth and asked if landowners opposed Alternative A1. How does the Highway Department acquire that road, do they do it through a condemnation or eminent domain. Would there be additional costs if legal action was taken. He supported improvement of A, but after hearing proposed Conservation Easement would support B1. *4.10., 4.15.*

Brad Peterson, MM/CSSA, noted that letters of opposition had been received from representatives of landowners along A1. He explained that if B1 were selected as the alternative then it could be taken by condemnation, but that it is preferable to work things out with the owners.

Jerry Groesbeck, resident near Haskill Basin, felt that the existing road down Haskill Basin (through Stoltze's property) could be used for an escape route if there were an emergency. Asked why there was not an alternative for an emergency escape. *3.2.7.*

Terry Richmond, MM/CSSA, said that the existing road down Haskill Basin is basically a two tract dirt road, heavily encroached upon by vegetation and could serve as an emergency route in the summertime, but to maintain as an emergency route in the wintertime would require extensive snow plowing to keep open.

Mary Moore, asked what the estimated maintenance cost on both roads would be. *4.17.*

Terry Richmond, MM/CSSA, stated that it would be considerable and the snowplowing operations would nearly double.

Mary Thompson, asked if anyone had taken into consideration the homes that would be built in the area and the septic system problems and drainage problems that would be associated with this. Also felt that this is one of the last pieces of wilderness in the Whitefish area which is easily accessible by local residents and that most of the wilderness on Big Mountain has been destroyed. *4.10.*

Don DeBeau, real estate director for Big Mountain, stated that Winter Sports, Inc. took the initiative in 1984 and is served by the Whitefish Sewer system. They have their own sewer and water facility and the sewage is treated on lands owned by Winter Sports then piped to Whitefish and does come down the drainage. A significant fee is paid the City to treat the wastewater. *4.1.*

Ben Cohen, State Representative, has provided garbage service on the Big Mountain and has had experienced problems on the switchbacks. He stated that garbage problems could not be taken care of with a cog railway, need roads with acceptable grades. He felt that if the cuts and fills on the third switchback were to be built to meet standards that it would be visible from Kalispell, problems with potential erosion. Favors A1 as a businessman, concerned that B1 could damage or destroy the wildlife habitat and that it would only be acceptable if there were extremely limited access (no development option). Questioned if Stoltze ever held the road for potential recreation/development and was of the understanding that it was strictly for timberland. *2.1, 4.10., 4.12., 4.13., 4.18*

MaiBritt Bennett, walked and drove the proposed B1 route, stated that the area was criss-crossed with roads and logging had occurred. Questioned what the Conservation Easement was and what impact would this have on development in the area. *4.10.*

Tom Jentz, Flathead Regional Development Office, explained that the Conservation Easement was a voluntary easement that current landowners could place on property; that it could be done either for a tax incentive or charitable contribution; that it could be as wide or narrow as an individual wants to make it; and it may be granted for the purpose of allowing no development. Also, one could have an easement that would limit development, only certain types of development and not necessarily preclude all developments. It is a mechanism that has a wide application, but it can be hand tailored for each individual property owner. They can preclude all development, some development or just various types of activities. With this in place it has to be respected as law. *4.10.*

Ed Meek, Asked about B1 going around Haskill Basin Creek and more explanation on this. *4.8.*

Brad Peterson, MM/CSSA, stated that if there was a preferred site then they would like to look at that also. Asked for comments.

Kathy Kramer, questioned if road grading on all three of the proposals were all the same and if so, what was the advantage since they would all be steep. *2.1., 4.16.*

Greg Goode, asked what Stoltze's position was on the B1 route; if they would go along with a Conservation Easement and asked the representative from Stoltze's what he felt, thought that Alternative A would eliminate a lot of clearing. *4.10.*

Ronald Buentemeier, Lands Manager, F.H. Stoltze Land and Lumber Company; their main concern is that the lands remain available for timber harvest and work for the sawmill, will be logging in the Haskill Basin area in the future and was not in a position to comment on a Conservation Easement. *4.10.*

Sharon Stratton, Flathead County Commissioner, said that she had been informed by a surveyor that on route A there is a grade at times of 15%, favored zoning if the B1 proposal was chosen so the things people did not want up there would be eliminated. *2.1., 4.10.*

Joe Bennett, asked if the easement could be written for any length of time, if Stoltze was going to allow any private housing on their property if the road would go through Suncrest property, said that there would be a lot of everyday impact. *4.10.*

Cookie Bryson, Haskill Basin resident, stated that Alternative B1 is no alternative for anybody in the area, water quality is a concern, concerned about wildlife habitat and the smell of wood smoke and diesel exhaust if more people move in the area, do not need more people up Haskill. *4.3., 4.8., 4.12., 4.13.*

Tom Sands, surveyor, said to remember that the purpose of this was to improve access to the Big Mountain, grades on existing roads vary from 8% to 6% to 10% to 12%, and at the upper end of the third switchback is 15%, impossible for fire trucks to navigate these in the wintertime, A1 is good access, B1 best alternative for access to the mountain, no dangerous curves and least grade, gives secondary access to the mountain, area is not pristine, need safest and best route to the mountain. *2.1.*

Jerry Hanson, Whitefish City Council, stated that the City is concerned about the water quality and that it should be very high on the list during construction and after the road is completed, B1 would have the most impact but is the best choice, preference is to stay on the west side of creek. If B1 is selected and follows route as shown on map, feels that there would not be a great deal of expense, good safety aspects. He suggested addressing the potential hazard at the intersection where B1 joins the existing road by tying the road back into Murdock Lane. The impacts on switchbacks are going to be to visible from a distance (Alternative A), visible impacts of B1 not as severe. Advantage of B1 - fewer property owners to deal with, easier to negotiate a buffer and could be designated as a scenic highway. *4.8., 4.18.*

Craig Moore, asked if B1 or A1 is constructed, what would the plans for the present highway be, would it be maintained and plowed also, and would the County be plowing and maintaining two roads and what the cost would be. *4.17.*

Terry Richmond, MM/CSSA, said it would have to be maintained since there is a lot of access off the road, a portion of A would still be

in place as there are private homes, maintenance would continue for access, did not know what the County cost is per month.

Mary Adkins, Flathead County Commissioner, did not know the dollar amount, explained how the Big Mountain does their share.

John Baddem, felt that the most visible part would be the cuts and switchbacks, very intense cutting and filling, not dealing with pristine area, unwise not to consider B1. *4.18.*

Gary Elliott, business owner on Big Mountain, concerned about the safety aspects of the road. Would like to see development curtailed until fire safety is addressed which would include sufficient water storage. Supports B1 alternative, one-way routing should also be considered. Would support zoning. Zoning should be established on entire area between the mountain and the City of Whitefish. *2.5., 3.2.5., 3.2.7., 4.10.*

Greg Bryan, Kinnikinnick Golf Group, is not opposing or supporting B1, concerned about the drainage into their development after the road cuts take place, proximity of how the land they own will be cut up, safety factor is considerable concern. *4.8., 4.10.*

Donna Maddux, did not speak in favor of any alternative, very concerned that water shed be protected, and that any development in the area protect the water for the City of Whitefish. Concerning Conservation Easement - felt that 30 to 50 years was not very long. *4.8., 4.10.*

Ed Yugorowski, real estate attorney from Michigan, was concerned about acquisitions and the costs and the success of a Conservation Easement. *4.10.*

A show of hands was taken for each Alternative.

Alternative E - None.
Alternative D - None
Alternative C - None.
Alternative B - 2 Hands.
Alternative B1 - 23 Hands.
Alternative A1 - 28 Hands.
Alternative A - 4 Hands.
Cograil/Tram - 4 Hands.
No Build Alternative - 2 Hands.

Approximately 100 to 110 people were in attendance.

95 individuals recorded their names and addresses which will be added to the Master Mailing List.

Meeting adjourned at 10:00 P.M.

Q

BIG MOUNTAIN ROAD
PUBLIC SCOPING MEETING
October 7, 1992

==========

A Public Scoping Meeting was held on October 7, 1992 in the Community Room of the North Valley Hospital, Whitefish, Montana, concerning the proposed reconstruction of the Big Mountain Road, RS 487-1(5)3. The following is a summary of that meeting:

==========

The meeting was opened at 7:10 P.M. by Terry Richmond and Brad Peterson of Morrison-Maierle/CSSA who explained the purpose of the meeting, the work completed to date, a brief summary of the past Scoping Meetings and the handout that was available to all attendees. Brad Peterson explained the road alternatives, the difference in maintenance costs and the environmental assessment.

Two letters from the public were read at this time:

Letter #1 from Molly Bruce stated that her vote was for Alternate A-1 with the second choice being Alternate A, her choices being made from the environmental standpoint (no high volume road in Haskill Basin, keep road in vicinity of present road). *4.10.*

Letter #2 from Barbara Taylor, whose preference was Alternate A-1, keeping the undeveloped areas intact, preserving the environment. *4.10.*

PUBLIC COMMENT:

Jerry Hanson, speaking as a private citizen, was in favor of B-1 since it involves the least number of property owners, has the least grade of slope, least visual impact, First Creek is not a significant factor of water supply for the City of Whitefish. Also that the Haskill Basin area was not virgin or pristine ground. He also submitted a letter. *3.1, 4.8, 4.10, 4.15., 4.18.*

Rick Yates, asked if this was a Federal Highway project, in favor of the No Action Alternative based on water quality and bear habitat. *1., 4.8., 4.12.*

Glinda Fagan, asked if there were going to be any restrictions if B-1 were developed, do property owners along the routes have a choice or will the property be condemned, will it be the taxpayer's dollars for maintenance of the road on B-1, or will Winter Sports maintain the road and how much weight will the public opinion carry. Her personal choice was A or A-1. *4.10, 4.15., 4.17*

Brad Peterson answered that they will negotiate with landowners, will request to buy the right-of-way from landowners with their consent, and in some cases condemnation may be needed. The County has been talking with Winter Sports regarding road maintenance, but there has been no commitment and that public opinion is one of the most important factors.

Jeff Cornell, supports B-1, but would also support conservation easements and no development along B-1. Concerned about wildlife if increased activity on A or A-1, agrees that B-1 does not go through a pristine area, no fire escape route which is very important, feels that Big Mountain is going to expand and grow and need to plan for this growth, stated that Alternative A is the "ostrich approach" with people burying their heads, Alternative A-1 is a "band-aid approach", it addresses some concerns but does not deal with the long term future growth of the area. *3.2.7., 4.10., 4.12., 4.13.*

Ward McCartney, stated that a mass transit system (buses) is needed in the valley, keep the existing road and repave it, purchase transit buses, offer the tourists more options and more tourists will probably return, the buses would provide permanent jobs, less air pollution and it would eliminate so many parking lots on the mountain. *3.2.6.*

Andy Apple, winter and summer employee of Big Mountain, stated that he has seen road problems year around, has seen bus problems not only at Ptarmigan and above at Eagles Nest, but below Ptarmigan. Favors Alternative B-1, take out all lower road problems. Need an in and out road for fire escape route. *2.1., 3.2.6.*

Letter #3 from Don DeBeau, President of Big Mountain Development Corporation was read by Terry Richmond at this time. Strongly urged development of Alternate B-1 for the following reasons: Right-of-way acquisition would not require the purchase of already developed properties, alignment/grade of the road is much more satisfactory, easier to get Federal Highway standards than any other alternative, this route would provide a much discussed need for a secondary alternative route in and out of the Big Mountain, improve route from East Lakeshore Drive to Gilande Street and the development of Alternative B-1 would reduce the impact of construction interaction along the route of the road to the mountain. *2.1., 3.2.7., 3.3., 4.15., 4.16*

Kaye Groesbeck, likes the idea of mass transit, fix major problems of existing road, does not need to be a high speed road, questions motives of B-1, asked if there really needed to be a road in and a road out for fire escape. *2.6., 3.2.6.*

Chris DeWan, did not think it made sense to have road closures and gates all over the backroads, yet consider installing a road where over a million people will travel a year. *4.10.*

Chuck Cameron, opposed to B-1 because of wildlife habitat and water quality reasons. Concerned about road cuts and falloff into the creek, sanding, salting, etc. to maintain road, runoff ends up in creek, affects downstream ecosystem. Sees development as one more step in whittling away of quality of life, work on the existing road, for A-1, strongly opposes B-1. *4.8., 4.12., 4.13.*

Loren Kreck, questioned the maximum right-of-way of 320 feet on Alternate A, stated that it seemed to radical, Federal Standards insensitive to particular needs, would be a visual eyesore from valley floor, improve current road, funds should be looked at. In favor of Alternate A, opposes B-1 and others. *4.15.*

Terry Richmond, clarified width is the maximum anticipated in any cut fill, the whole right-of-way would not be that width. Most areas would be considerably less.

Ben Cohen, right-of-way of road width and new road cuts on Alternative A or A-1 should really be clarified, some idea of the extent of the cuts and the visual impact from along Whitefish Lake. *4.15., 4.18.*

Brad Peterson stated that the largest cuts would be on Alternative A and A-1 because of the steep hill, attempting to describe that in the Environmental Assessment.

Russ Street, owner/promoter of Big Mountain, in favor of B-1 because economy of Flathead Valley depends on Big Mountain, need a decent road. *4.1.*

Karen Reeves, asked if a mass transit system be put in as an alternative and considered, need public transit, streams needed for future water by city, against B-1. *3.2.6., 4.8.*

Brad Peterson said that a cog rail system has been suggested previously, will look at any alternative.

Letter #4 from Bruce Boody was read. It stated that the scope of transportation planning has changed significantly with the implementation of ISTEA (Intermodal Surface Transportation and Efficiency Act), the Big Mountain is more than a ski area (1600 housing units), no planning has been undertaken to determine the upgrading of Wisconsin Avenue/East Lakeshore to the mountain turnoff, would like to see upgrade of existing road, mass transit or train facility, combined parking areas/bus transit connections, and asked what the long term effects of alternative transportation methods vs. a new road in regard to air quality in the North Valley as the population and tourism increases. *2.9., 3.2.6., 4.3.*

Brad Peterson stated the bus concept was a good idea, a consideration would be if the existing roadway is adequate for a bus system or large vehicles, buses are part of the problem now.

Ward McCartney suggested small twenty passenger buses leaving every ten minutes, expand to Columbia Falls and Kalispell year around. *3.2.6.*

Ben Cohen would like questions answered, since this was the third meeting. Vast majority of the citizens of the community do not think that another road is needed to the mountain, present road is not adequate for services and deliveries that are needed. Endorses A-1 alternative, suggested Commissioners listen closely to mass transit

ubject. Big concern is road maintenance and who is going to pay for t. *2., 3.2.6., 4.17.*

athy Kramer stated that anytime a mountain road is constructed it becomes ugly, does not like bare ski runs, as a taxpayer she is being asked to support a new road or significantly change an existing one, and to maintain it in order for Big Mountain and Winter Sports to profit; tourist industry jobs are low paying, Big Mountain is not an economic hub for Whitefish, continuing development frightening, supports Alternative A, repave and no cuts, keep costs down, supports mass transit system. *3.2.6., 4.1., 4.18.*

Letter #5 from Margaret Murdock was read. She felt that the evaluations and studies should be prepared by professionals totally uninterested in the development of Flathead Valley, water supply is main concern, there are enough roads in Flathead County that are in need of maintenance, do not need another road to dead end at Big Mountain, in favor of Alternative A-1. *4.8., 6.*

ick Kramer's concerns were the watershed, wildlife habitat; does not believe in the concept of a conservation easement, felt that if road was constructed in Haskill Basin that it would open it up for real estate development. Opposed to B-1, maintenance costs to high, Big Mountain and Winter Sports profits while the taxpayers pay. Does not want to see condos in B-1. In favor of Alternate A-1. Stated that Stoltze Land and Lumber have good forestry practice. Asked who will make the final decision on the preferred alternative. *4.1., 4.8., 4.10., 4.12., 4.13., 4.17.*

rad Peterson said the road is considered a County secondary roadway so it is a County project. The County Commission will make a decision on the preferred alternative and seek concurrence with the Montana Department of Transportation and the Federal Highway Administration.

ike DeGrosky, Montana Department of State Lands, supports concept of second route off mountain. Big Mountain road area highest risk of 165 areas rated for wildfire, one of four areas that is considered in the extreme classification, existing road system down Haskill Basin does not meet definition of viable emergency access route because it is to narrow and to hard to find yourself around if you are not familiar with the road system and gated. Department supports B-1 for emergency concerns, Department suggested compromise solution which involves the A-1 alternative combined with moderate improvements to the Haskill Basin road system and installation of breakaway gates, weak link chains, etc.. *3.2.7., 4.10.*

eo Keane opposed to B-1 because of the wildlife, sking, hiking, etc., activities. Would like to see completed Environmental Assessment with a chapter on wildlife which includes not only the endangered species. Prefers A or A-1. *4.12., 4.13.*

ike Vetter, existing road unsafe, A-1 safest route, B-1 would be a safe route, but does not like the idea of 3.9 miles of new road. In favor of A-1. *2.5.*

Chris Miller asked if a railway or tram system and its cost had been looked into and if this was going to be considered as an alternative. *3.2.6.*

Brad Peterson stated that he did not have an answer as to cost, but would obtain one and include it in the Environmental Assessment.

Sharon Stratton, Flathead County Commissioner, questioned if a bus system would be workable with the low population, some Eagle Transit routes had been canceled due to lack of interest, people in this valley are used to going in their own vehicles when and where they want to go. Asked if bussing could be paid for out of designated dollars. *3.2.6.*

Brad Peterson said he would check into this.

Sharon Stratton, Flathead County Commissioner concerned about the extreme risk for fire danger on the mountain and for this reason stated that B-1 should be looked at closely. *2.6., 4.10.*

Barbara Taylor said that the Haskill Basin area was in an extreme fire risk area, if this was opened for development it would open it even more for fire danger. In favor of transit system. *2.6., 3.2.6., 4.10.*

Chris DeWan, do not need a faster and straighter highway, felt that in the wintertime the existing road was safer since it forced the inebriated people to drive slower. Would like to see alternative exit without paving it. *2.5., 3.2.7.*

Howard Gipe, Flathead County Commissioner stated that when he was a Montana Highway Patrolman he investigated fatalities on Big Mountain Road as the road exists now. *2.5.*

Diane Helgath, concerned about fire danger. Stated that she lives on Reservoir Road and the residents have asked the County to have an alternative route out in case of fire. Was informed that the residents of the subdivision have to provide their own funding for this, questioned why Big Mountain was favored over the residents and taxpayers. *2.6., 3.2.7.*

Terry Richmond responded that the Big Mountain road has been designated as a Federal Aid Secondary Highway and Reservoir Road has not. It is eligible for improvement with FHWA and MDT dollars where Reservoir Road is strictly County.

Jerry Hanson, asked if one road would be sufficient ten to fifteen years from now. Have to consider a twenty year impact. *2.2.*

Donna Maddux speaking as a private citizen, would not like to see development in the watershed and concerned about the cost to the taxpayers for maintaining two road systems to the Big Mountain. Concerned about fire danger. Prefers A or A-1. *2.6., 4.8., 4.17.*

Dorothy Heard stated that Whitefish residents created the Big Mountain, Whitefish residents promoted Big Mountain. Big Mountain road

built and paid for by the Big Mountain and deeded to the County, current Big Mountain Master Plan was available for public review approximately ten years ago and was recently updated. Most of the plans that are happening on the mountain are in the Master Plan. There is no zoning between Big Mountain and the lower Ptarmigan area, area open for development, lumber companies selling off their timber, how long before Stoltze sells, Federal Highway dollars were not available for mass transportation, perhaps it is an alternative that should be looked into. Probably would not receive $6 million, but only what it would cost to purchase a few buses. *3.2.6., 4.1., 4.10.*

John Porterfield, stated that the ski market is expanding, Big Mountain in top percentage of all existing ski areas, road needs to be improved, passing lanes critical issue, mass rapid transit vital concern, tourists would like to see another option other than driving their own vehicle, would like to see new road with nice visual pullout areas where vehicles can pull over and stop. *3.2.6., 4.1.*

Sue Powell, asked why the decision had to be made so quickly with so many unanswered questions.

Brad Peterson said that the purpose of the meeting was to receive input from the public so the questions could be answered and the Environmental Assessment completed and available to the public.

Steve Bryson preferred the mass transit alternative but felt that people would not utilize it enough, would like to see mass transit in addition to Alternative A-1, B-1 to fast a road, questioned dollar amount for new road, fire escape route an important issue, said Big Mountain needs a fire department or fire system, opposed to B-1, concerned about wildlife. Does not believe covenant would protect B-1 area from development. *3.2.6., 3.2.7., 4.10., 4.12., 4.13.*

Peggy Banka, who lives on the switchback at Eagles Nest, stated that the road needs some changes, people overdrive the road, opposed to B-1, needs corrections on existing road. Would like to see a fire safety road, but felt that a new paved road (Alternative B-1) was not the answer. *2.1., 3.2.7.*

Bambi Goodman felt Stoltze have been good land stewards, very good for wildlife, need fire escape route, paving road through Haskill Basin would not serve the purpose that was intended, opposed to B-1. *2.6., 4.10.*

A show of hands was taken for each Alternative.

No Action Alternative	- 3 Hands.
Alternative A	- 6 Hands.
Alternative A-1	- 19 Hands.
Alternative B-1	- 16 Hands.
Mass Transportation With No Improvements	- 0 Hands.
Mass Transportation With Road Improvements	- 31 Hands.
Alternative A-1 With Fire Access Road	- 16 Hands.

Approximately 90 - 100 people were in attendance.

The meeting was adjourned at 9:10 P.M.

APPENDIX B - LETTERS RECEIVED FROM AGENCIES

Following pages include written correspondence received from local, state and federal agencies who have jurisdiction or specific expertise related to the project.

Where applicable, the section numbers where the comments are addressed in this document are indicated similar to this example:

2.1., 3.2.6., 4.19.

City of Whitefish

Box 158, Whitefish, Montana 59937 (406) 862-2640

RECEIVED

JAN 23 1991

MORRISON-MAIERLE/CSSA, INC.

January 18, 1991

Mr. Brad Peterson, Project Manager
Morrison-Maierle/CSSA
P.O. Box 6147
Helena, MT 59601

RE: PROJECT RS 487-1(5)3

Dear Brad,

I am writing to express concerns the Whitefish water utility has with the alternatives proposed for the Big Mountain Road. 4.8.

Alternatives B, C, D, & E would all impact our municipal water supply as follows:

1. The route would come within a few hundred feet of our water supply intakes on 1st, 2nd and 3rd Creeks. This close proximity would lead to increased problems with watershed control.

2. Development along the route would lead to increased activity within the watershed and degradation of the water quality.

3. Increased traffic within the area could cause increased problems with vandalism of structures and pipelines.

4. The route crosses our pipeline from 2nd and 3rd Creeks with potential for interruption of supply during construction and at other times beyond our control.

5. The route parallels 1st Creek and would limit or preclude further development and use of this supply.

6. The potential for loss of use of the entire watershed due to fire or other cause would be increased dramatically.

Alternatives B and C would impact our municipal water supply, in addition to the above, as follows:

1. The route would cross our transmission pipeline from all three creek intakes as many as three additional times with increased potential for interruption of water supply.

2. The surface runoff along these routes drains to the vicinity of our open raw water storage reservoir increasing potential for contamination of our water supply.

3. The route of Alternative C would come within a few feet of our open raw water storage reservoir through land owned by the City of Whitefish. This route should be eliminated from further investigation for obvious reasons.

Although the need for improvement of Big Mountain Rd. is well demonstrated and should be a high priority, the only alternative that would not adversely impact our municipal water supply would be the route of the existing road.

If you have any questions or comments please feel free to contact me.

Sincerely,

Greg Acton

Greg Acton
Utilities Supervisor

9101.95 Q

RECEIVED
JAN 24 1991
MORRISON-MAIERLE/CSSA, INC.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
Federal Bldg., U.S. Courthouse
301 South Park
P.O. Box 10023
Helena, Montana 59626

IN REPLY REFER TO:

M.16 FHWA FY91 (I)

January 23, 1991

Mr. Brad Peterson, Project Manager
Morrison-Maierle/CSSA
P.O. Box 6147
Helena, Montana 59601

Dear Mr. Peterson:

This responds to your Notice of Intent dated January 8, 1991 concerning the proposed reconstruction of about five miles of Big Mountain Road (FAS 487), between Milepost 2.5 and Milepost 7.7, in Flathead County, Montana, near Whitefish. 4.12.

The threatened and endangered species that occur or may occur in the general project area include the grizzly bear (Ursus arctos horribilis), gray wolf (Canis lupus), bald eagle (Haliaeetus leucocephalus) and peregrine falcon (Falco peregrinus).

Part of the Haskill Creek area is considered to be spring and fall habitat for the grizzly bear. Recently, there have also been sightings of gray wolves in this area. The Haskill Creek drainage also contains good habitat for mule deer, elk and moose. For these reasons, we believe Alternative A is much preferable, from a wildlife resource standpoint, than are any of the other identified alternatives. Alternative B may be preferable to C, D, and E. However, this needs further consideration. In any case, we strongly urge that you carefully assess the potential impacts of this project on threatened and endangered species, especially the grizzly bear and gray wolf.

Both peregrine falcons and bald eagles may occur in the area as spring and/or fall migrants. We are not aware of peregrine falcon or bald eagle nest territories in or near enough to the project area to be of direct concern. While we do not foresee any substantive issues with the proposed project with regard to the bald eagle and peregrine falcon, any powerlines in the vicinity, if not properly constructed, could pose electrocution hazards for these species. To conserve these species and other large raptors protected by Federal law, we urge that any powerlines that may need to be modified or reconstructed as a result of the project be raptor-proofed following the criteria and techniques outlined in the Raptor Research Report No. 4, "Suggested Practices for Raptor Protection on Powerlines - The State of the Art in 1981". A copy may be obtained from: Jim Fitzpatrick, Treasurer, Raptor Research Foundation, Carpenter St. Croix Nature Center, 12805 St. Croix Trail, Hastings, MN 55033

If you or the Federal Highway Administration (the responsible Federal agency in this case) determine that any of the above listed species may be affected, it will be necessary for the Federal Highway Administration to initiate formal consultation with this office.

We have no information, at present, on the potential for the project to adversely impact wetland habitats. However, we assume that a wetland inventory and impact assessment will be completed in accordance with the 1989, "Interagency Memorandum of Understanding: Management and Mitigation of Highway Construction Impacts to Wetlands in the State of Montana." We urge completion of any needed wetland mitigation in full accordance with that Memorandum of Understanding. *4.9.*

We appreciate your efforts to consider and conserve fish and wildlife resources, including threatened and endangered species. If you have questions regarding this letter, please contact Mr. Gary Wood of our Billings Suboffice (406) 657-6750.

Sincerely,

for Kemper McMaster
Field Supervisor
Montana/Wyoming Field Office

JGW/dc
(B:PETERSON.LTR)

cc: Montana Dept. of Fish, Wildlife & Parks - Kalispell, MT
Montana Dept. of Fish, Wildlife & Parks - Helena, MT
Steve Potts, Environmental Protection Agency - Helena, MT
John Peters, Environmental Protection Agency - Denver, CO
Federal Highway Administration - Helena, MT
Suboffice Coordinator, USFWS, Fish & Wildlife Enhancement - Billings, MT
Montana Dept. of Highways - Helena, MT

bcc: Jeff Ryan, Montana Dept. of Highways - Helena, MT
Rob Hazlewood, USFWS, Fish & Wildlife Enhancement - Helena, MT

Flathead Regional Development Office

723 5th Avenue East - Room 414
Kalispell, Montana 59901

Phone: (406) 752-5300 Ext. 279

March 26, 1991

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
P. O. Box 6147
Helena, MT 59604

Re: Big Mountain Road Scoping meeting - February 20, 1991

Dear Mr. Peterson:

The Flathead Regional Development Office serves as the planning staff for Flathead County as well as for the Whitefish area. We, therefore, feel it is appropriate to comment on the Big Mountain Road alternatives that were proposed at the February 20, 1991 scoping meeting. In general, we applaud your efforts to ascertain the most suitable road alignment to serve the Big Mountain Ski Resort. The planning office does have several overriding concerns that we will utilize in reviewing the various alternatives proposed. Those concerns are as follows:

a. No route should jeopardize the current Whitefish watershed or water supply. *4.8.*

b. A second access serving Big Mountain, which would provide an alternative route to and from the Mountain for emergency vehicles and as an escape route in emergencies such as wildfire, is highly desireable. *2.6., 3.2.7.*

c. The extension of a new road alignment into otherwise undeveloped private lands greatly enhances the potential for additional development along such an alignment should one be chosen. Efforts must be made to coordinate or address any potential development including subdivision activity, driveway approaches and larger access points. In addition, the merits of allowing development to occur in these areas and the impacts of such development upon the surrounding area should be weighed. *4.10.*

In light of the above three concerns, the staff feels that options B, C, D, and E are unacceptable. They may provide suitable access points to the Big Mountain; however, the negative ramifications appear at this point to immediately outweigh any positive beneficial aspects they may provide. Such negative aspects include threats to the city watershed and increased liklihood of encouraging additional development on the foothills of Big Mountain. The staff also feels that Alternative A, which includes merely reconstructing the existing alignment, is somewhat unsatisfactory given the extreme limitations of this alignment, the excessive number of switchbacks and the steep grade. Staff would support a modified Alternative A, which would include several alignment changes to avoid hazardous curves and precarious switchbacks. Staff still supports a second access up to Big Mountain; however, if this does not prove to be feasible, staff would encourage that the new alignment be

properly sized to deal with various situations this road will experience including increased traffic, emegency vehicle access, parking lanes for tourists, disabled vehicles, and vehicles chaining up. In addition, the wider road would create a greater safety margin should an accident occur that may otherwise block the road. In light of this, the staff would support the forty (40) foot travel surface alignment as proposed at the first scoping meeting. It is understood, however, that the forty (40) foot or larger travel surface will necessitate a considerable amount of cut and fill as well as vegetative removal. Staff would encourage, as part of the overall design, that all such cut and fill areas be done in such a manner that they can be revegetated with low-growing ground cover to limit erosion and the appearance of mountain side scars. *2.1.*

Finally, the planning staff is concerned about the future access policy on this road. It is commonly accepted that the carrying capacity of any road can be greatly reduced simply by increasing the number of driveways and major access points. What provisions will you be suggesting to address this type of concern? One area, in particular, that I would like to draw your attention to lies on the existing alignment approximately one mile north of East Lakeshore Drive at the first major curve. This is the point where The Woods subdivision, presently undeveloped, accesses onto the Big Mountain Road. Our office is presently reviewing the Kinnikinnik Golf Resort, which also proposes to use this as a secondary access onto Big Mountain Road. This development will provide upwards of 700 residential units and an 18 hole golf course. While their primary access will be to the south on East Lakeshore Drive, it is possible that a considerable amount of traffic could utilize this northern access point, in particular, during the ski season. As you will note this corner already has an unsafe site distance with a subdivision access entering the middle of the corner or curve. Major redesign work needs to be done here. In addition the County needs to adopt specific policies concerning future access onto Big Mountain Road. *2.2.*

I hope you find these comments beneficial. Should you have any additional questions or concerns of this office, do not hesitate to call at your earliest convenience.

Sincerely,

Stephen F. Herbaly
Planning Director

TRJ/arw

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

July 11, 1991

REPLY TO
ATTENTION OF

Planning Division

RECEIVED
JUL 16 1991
MORRISON-MAIERLE/CSSA, INC.

Mr. Brad Peterson
Morrison-Maierle/CSSA
P.O. Box 6147
Helena, Montana 59601

Dear Mr. Peterson:

We have reviewed the Notice of Intent of Public Scoping Meeting number two on the reconstruction of Big Mountain Road in Flathead County, and we offer the following comments.

The design of the proposed project should ensure that the project is in compliance with flood plain management criteria of Flathead County and the state of Montana. As a minimum, the design should insure that the 100-year flood water surface elevation of any stream affected is not increased more than one foot relative to pre-project conditions. It is desirable, however, that water surface elevations either remain the same or decrease as a result of this project. *4.6.*

If you have not already done so, we recommend that you consult with the U.S. Fish and Wildlife Service and the state agency responsible for fish and wildlife resources. In addition, the State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area. *4.11., 4.12., 4.13.*

It appears that some of the construction could take place in waterways or wetlands which are classified as waters of the United States and are therefore regulated under Section 404 of the Clean Water Act. If construction activities involve the temporary or permanent placement of dredged or fill material into waters of the United States, a Section 404 permit may be required. For a detailed review of the permit requirements, final project plans should be sent to: *4.8.*

Mr. Larry Robson
U.S. Army Corps of Engineers
Regulatory Office
218 Federal Building and Post Office
2602 1st Avenue N.
Billings, Montana 59101

If you have any questions, please contact Mrs. Pat Freeman of our staff at (402) 221-3803. Thank you for the opportunity to review this proposal.

Sincerely,

Robert S. Nebel
Chief, Environmental
Analysis Branch
Planning Division

721-1964

State Historic Preservation Office
Montana Historical Society
Mailing Address: 225 North Roberts • Helena, MT 59620-9990
Office Address: 102 Broadway • Helena, MT • (406) 444-7715

October 17, 1991

Edrie L. Vinson
Supervisor
Environmental Unit
Montana Department of Highways
2701 Prospect Avenue
Helena, MT 59620

Copy to M&M
1/8/92
MAL

Re: Big Mountain Road
RS 487-1(5)3

Dear Edrie:

Thank you for sending us HRA's report on the cultural resources inventory for Big Mountain Road. We concur with the consultant and your agency that the adit remnant recorded as 24FH456 will not qualify for listing in the National Register. 4.11.

For 24FH457 and 24FH458, however, I request some clarification and background to complete evaluation. Both properties were apparently homesteads, neither has standing structures and both appear to have historic artifacts in association. The consultants were unable to date the historic remains of the homesteads, either in terms of when buildings were built or when occupation ceased. Without knowing dates, it is difficult to judge whether the historic artifacts remaining have information potential. It appears that BLM lands records, county tax records and, if necessary, the actual homestead files might still be checked to establish duties. There is also the possibility that testing might be necessary to determine the kinds and amounts of historic artifacts present in the privy and other buildings at 457 and the lumber, furniture, glass and tin filled cellar at 458. Please clarify your thinking on the lack of information potential at these two properties for me. With so many artifacts present, with poor ground visibility and without benefit of understanding the remains in terms of time or theme I am finding evaluation difficult.

Please also let us know corridor width inventoried for Alternative A1, and the total number of acres covered. My understanding from reading the methodology section of the report is that inventory has not been completed for Alternative B. If that is not your understanding, we likely need to touch bases on that as well.

Thank you for the opportunity to comment.

Sincerely,

Marcella for
Katherine M. Huppe
Historical Survey Reviewer

File: Comp/MDOH Big Mtn. Road

Date Recd. Preconst 10/22/91

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
	✓	32 Road Design		
		33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	Weaver		
	✓	File		

9101.95 Q

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

AIR QUALITY BUREAU

STAN STEPHENS, GOVERNOR

COGSWELL BUILDING

STATE OF MONTANA

FAX # (406) 444-2606

(406) 444-3454
FAX # (406) 444-1374

RECEIVED
JAN 13 1992
MORRISON—MAIERLE/CSSA,

January 10, 1992

Mr. Brad Peterson
Morrison Maierle/CSSA
P. O. Box 6147
Helena, MT 59604

Dear Mr. Peterson:

This is in response to your letter of notification regarding the Big Mountain Road improvement project designated a RS 487-1(5)3, near Whitefish, MT.

In general, any project which will smooth out the traffic flow and reduce stopping and idling time will also reduce the amount of air pollution emissions from transportation sources. The Flathead valley has two nonattainment areas for fine particulates. The major sources of these particulates are reentrained road dust and residential wood stove emissions. Since this road surface is to be paved, the Air Quality Bureau has determined that there will be no significant impact on the attainment of the Montana air quality standards from this project. 4.3.

Thank you for the opportunity to comment.

Sincerely,

Warren Norton

Warren Norton
Environmental Specialist

9101.95 F

Montana Department of Fish, Wildlife & Parks

1420 East Sixth Avenue
Helena, Montana 59620
January 14, 1992

Brad Peterson, P.E.
Chief Transportation Engineer
Morrison- Maierle/CSSA
P.O. Box 6147
Helena, MT 59604

RE: RS 487-1(5)3, Big Mountain Road

Dear Mr. Peterson:

Your January 8, 1992 letter indicated that a Notice of Intent concerning the above referenced project was sent to the Department in January 1991. We have checked our files here in Helena and in Region 1. Neither office has a record of receiving any previous correspondence pertaining to the proposal. 5.1.

I am forwarding the data you sent to me to Region 1 for their information and processing. Future correspondence relating to this project should be directed to:

Dept. of Fish, Wildlife & Parks
Region 1
490 North Meridian
Kalispell, MT 59901

If you have any questions, feel free to call me at 444-5667.

Sincerely,

Ken Chrest

Ken Chrest
Stream Protection Coordinator
Fisheries Division

drg

9101.95 Q

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

STAN STEPHENS, GOVERNOR

LEE METCALF BUILDING
1520 EAST SIXTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-6699
TELEFAX NUMBER (406) 444-6721

HELENA, MONTANA 59620-2301

January 21, 1992

RECEIVED
JAN 23 1992
MORRISON—MAIERLE/CSSA, INC.

Brad Peterson
Morrison-Maierle
P.O. Box 6147
Helena, MT 59604

Re: RS 487-1(5)3
Big Mountain Road

You recently invited comments pertaining to the referenced project. The Department of Natural Resources and Conservation has these concerns.

First, water may be needed for dust control or some other construction-related purpose. If the contractor uses surface water or over 35 gallons per minute or 10 acre-feet of ground water, a temporary water use permit will have to be obtained. For information about application forms and procedures, contact the DNRC Water Resources Regional Office, P.O. Box 860, Kalispell, MT 59903 (phone 752-2288). *4.8.*

Second, this project may affect irrigation or other water conveyance facilities. Care should be taken during construction not to interfere with existing water rights and any facilities that may be involved should be maintained or replaced. Our Kalispell Regional Office can provide information on any water rights that may be affected. *4.14.*

Thank you for the opportunity to comment.

Sincerely,

Jim Bond

Jim Bond
Information Officer/
Citizen Participation Advocate

copy: Ron Guse, Water Rights Bureau
Kalispell Regional Office
Intergovernmental Review Clearinghouse

9101.95 020 F

CC

MASTER FILE COPY

State Historic Preservation Office

Montana Historical Society

Mailing Address: 225 North Roberts • Helena, MT 59620-9990
Office Address: 102 Broadway • Helena, MT • (406) 444-7715

April 2, 1992

Edrie L. Vinson, Chief
Environmental and Hazardous Waste Bureau
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620

Re: Big Mountain Road
RS487-1(5)

Dear Edrie:

The additional information HRA provided about the two historic age homestead sites recorded for this project reiterates their position, but really doesn't help me know **why** they believe there is no information potential in the historic structural remains and artifacts (visible and possibly buried) at 24FH457 and 24FH458. No homesteading theme has been developed for the Whitefish area. We don't know what kinds of people settled there, whether the railroad was important in bringing settlers into the area, what crops were the focus of small holdings, whether homesteading was an important factor in areal development, etc. Without knowing something about homesteading and something about the kinds and amounts of historic artifacts present at these sites, it doesn't seem possible to develop the context needed to evaluate them. *4.11.*

If you are able to avoid impact to the homestead sites, it will probably not be necessary to resolve their eligibility. If not, it may be profitable to limit additional discussions to contextual synthesis for now, avoiding discussion of interpretative historic archaeological constructs and data requirements until we know whether we have a significant pattern of local development in the homesteading movement into Whitefish.

Thanks for keeping us informed, and please call if you have questions.

Sincerely,

P. Bornemann
for Katherine M. Huppe
Historical Survey Reviewer

File: Comp/ MDOH Big Mountain Road

Montana Department
of
Fish, Wildlife & Parks

1420 East Sixth Avenue
Helena, Montana 59620

August 26, 1992

Mr. Brad Peterson, P.E.
Chief Transportation Engineer
Morrison Maierle
P. O. Box 6147
Helena, MT 59604

Dear Mr. Peterson:

RE: RS 487-1(5)3
Big Mountain Road

We have reviewed your above-mentioned proposed project for highway improvements on Big Mountain Road. The Department of Fish, Wildlife and Parks knows of no 6(f) or 4(f) Conversion of Use which would occur as a result of the proposed highway improvements.

Thank you for the opportunity to comment. We appreciate your cooperation.

Sincerely,

Mary Ellen McDonald

MARY ELLEN MC DONALD
Administrative Officer
Operations Bureau
Parks Division

cc: Dan Vincent, R-1 Supervisor
Dave Conklin, R-1 Park Manager

ks

RECEIVED

OCT 6 1992

MORRISON—MAIERLE/CSSA, INC.

~~9100.2~~ 9101.95 020 F

United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
FEDERAL BUILDING, US COURTHOUSE
301 S PARK, P O BOX 10023
HELENA MT 59626

IN REPLY REFER TO:

TAKE PRIDE IN AMERICA

Date Rec'd: [redacted]

Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Const Mgmt		
		31 Safety Mgmt.		
		32 Road Design		
	✓	33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng.		
		37 Traffic Operations		
	✓	39 Consultant Dsn.		
	✓	Legal		
	✓	JT Weaver		
	✓	M & M		
		file		

September 29, 1992

File: M.17 FHWA-Big Mtn. Road

Hank D. Honeywell
Division Administrator
U.S. Department of Transportation
Federal Highway Administration
301 South Park Street
Room 448
Helena, Montana 59626

SEP 3 0 1992

Dear Mr. Honeywell,

This letter is in response to your September 25, 1992 request to the Fish and Wildlife Service (Service) to be a cooperating agency, and participate in the development of the Environmental Assessment (EA) for the Big Mountain Road project.

In order to be in compliance with the Council on Environmental Qualities' (CEQ's) regulations with respect to "cooperating agencies" (40 CFR 1501.6), the Service agrees to participate in the Environmental Assessment process as a cooperating agency. However, due to resource limitations our participation will be limited to the following: *4.12.*

1. Participation in the scoping process to ensure that issues of concern to the Service are acknowledged and adequately addressed.

2. Review and comment on scopes of work, the preliminary draft EA, draft EA, and final EA.

3. Fulfill Service responsibilities under the "Interagency Memorandum of Understanding: Management and Mitigation of Highway Construction Impacts to Wetlands in the State of Montana."

4. Review and comment on the Section 4 (f) documentation.

5. Informal consultation under Section 7 of the Endangered Species Act (ESA) to provide guidance and relevant information to the Federal Highway Administration (FHWA) or their designated non-federal representative with respect to preparation of the biological assessment for endangered and threatened species. The Service will also make recommendations concerning mitigation/coordination measures that could be incorporated into the project design to reduce or substantially eliminate adverse impacts to listed species.

6. Prepare a biological opinion pursuant to Section 7 of ESA should the biological assessment conclude that listed species are likely to be adversely affected or should the Service not concur with a no adverse affect finding.

Your interest in having the Service participate as a cooperating agency to ensure that areas under Service jurisdiction and responsibility are adequately addressed and protected through the National Environmental Protection Act process is appreciated. Mr. Rob Hazlewood in our Helena office (phone 449-5225) will serve as the Service's primary contact for this project.

Sincerely,

Dale R. Harms
State Supervisor
Montana State Office

RMH/rmh

cc: ARD, Fish & Wildlife Enhancement, USFWS (Denver, CO.)

DEPARTMENT OF STATE LANDS
FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

STATE OF MONTANA

NORTHWESTERN LAND OFFICE
P.O. Box 490
Kalispell, MT 59903

Telephone: (406) 752-7994
Fax: (406) 752-7993

RECEIVED
OCT 9 1992
MORRISON—MAIERLE/CSSA, INC.

MEMORANDUM

TO: Mr. Brad Peterson, Project Manager 306.4
Morrison-Maierle/CSSA
Box 6147
Helena, MT 59604

FROM: Mike DeGrosky, Kalispell Unit Fire Supervisor
Northwestern Land Office

RE: Big Mountain Road Scoping Meeting October 7, 1992

Thankyou for the opportunity to provide input to the Big Mountain Road Environmental assessment. Please accept the following written summary of the comments which I made at the October 7 Scoping Meeting. However, I would first like to mention that it is apparent that the B1 alternative is not palatable to a growing segment of the community. As I indicated at the first Scoping Meetings, our position has always been as follows:

1. The Big Mountain **area (not only the Big Mountain Resort)** represents an extreme wildfire risk.

2. Significant development is in progress or planned on the mountain, **including properties outside the resort.**

3. The Big Mountain should be served by an improved road to provide for simultaneous access by large emergency vehicles and egress by the public.

4. The Big Mountain should be served by multiple access/egress to provide for alternate emergency travel should the Big Mountain Road become impassable.

2.6., 3.2.7., 4.10.

KALISPELL UNIT
P.O. Box 490
Kalispell, Montana 59903
Telephone (406) 752-7994
Fax (406) 752-7993

STILLWATER STATE FOREST
P.O. Box 164
Olney, Montana 59927
Telephone (406) 881-2371
Fax (406) 881-2372

LIBBY UNIT
14096 U.S. Highway 37
Libby, Montana 59923
Telephone (406) 293-2711
Fax (406) 293-6748

PLAINS UNIT
P.O. Box 219
Plains, Montana 59859
Telephone (406) 826-3791
Fax (none)

SWAN STATE FOREST
Swan Lake, Montana 59911
Telephone (406) 754-2301
Fax (406) 754-2884

COMMENT SUMMARY
OCTOBER 7, 1992 SCOPING MEETING

I. REASON FOR COMMENTING AGAIN

A. Continuing debate/comment/remarks by others tesifying
B. Need for clarification

II. DSL RISK RATING EFFORTS

A. Approximately 165 Residential-Wildland areas evaluated to assess their risk from wildfire
B. Big Mountain Road **area** highest risk of those 165
C. One of only four areas in our "**Extreme**" classification

III. DEVELOPMENT SITUATION

A. Alot of development planned or taking place on the mountain
B. Most is on Winter Sports, Inc. property, but certainly not all

IV. DSL POSITION

A. For these reasons our Department supports the **concept** of a second route serving the Big Mountain.

B. This second route could be arrived at by choosing a new route for the Big Mountain Road **or** by providing some form of alternate emergency access route.

C. THE EXISTING ROAD SYSTEM IN HASKILL BASIN DOES NOT CURRENTLY MEET THAT NEED.

1. Too narrow
2. Too difficult to find and navigate
3. Relatively primitive travel surface
4. Gated and locked approximately six miles up

D. I shared Rep. Ben Cohen's concerns that the alternatives have not changed in response to public input.

E. From a purely emergency services perspective:

1. **CONSIDERING THE RELATIVELY <u>NARROW</u> RANGE OF ALTERNATIVES PRESENTED**
2. It would appear that the B1 option should be chosen to best address emergency service needs.

F. **<u>HOWEVER</u>**, Our department has suggested a compromise solution involving the "A1" alternative combined with moderate improvements to the Haskill Basin road system (logging road system) to provide a viable, alternate emergency access road.

1. Would not have to be a road which is open to public travel, but if barricaded, would require an innovative approach that facilitates emergency passage. (Note: Our department would be willing to work with Stoltze Land and Lumber and Winter Sports, Inc. on a suitable solution).

2. We must bear in mind that this proposal involves roads and lands owned and controlled by Stoltze Land and Lumber Co. and that I have advanced this idea without first consulting their management.

END OF COMMENT SUMMARY 10-7-92

This combination of alternatives would satisfy both needs (improved road system to facilitate simultaneous travel by large emergency vehicles/egress by the public and an alternate route).

Thankyou for the opportunity to comment.

CC: Flathead County Commission
Cal File
Wright
Mead/O'B
Stoltze

State Historic Preservation Office
Montana Historical Society

102 Broadway • P.O. Box 201202 • Helena, MT 59620-1202 • 406/444-7715

June 2, 1993

Edrie Vinson, Chief
Environmental and Hazardous Waste
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620

RE: Big Mountain Road, RS 487-1(5)3

Dear Edrie:

Thank you for providing the homesteading context for Whitefish as an addendum to the original report for this project. Now, with themes defined and significant development patterns known, we can concur with your judgement and the recommendations of the consultant that neither of the homestead properties recorded (24FH457 and 24FH458) will qualify for listing in the National Register. *4.11.*

We appreciate your attention to this matter, and the good research provided by HRA.

Sincerely,

Kathy

Katherine M. Huppe
Historical Survey Reviewer

File: Comp/ MDT project file

Flathead County
Board of Commissioners
800 SOUTH MAIN STREET • KALISPELL, MONTANA 59901 • (406) 752-5300

December 8, 1992

Montana Department of Transportation
2701 Prospect
Helena, Montana 59620

Attention: Mark Leighton

Re: Preferred Alternative for Big Mountain Project
Project # RS 487-1(5)3

Dear Mark:

Please be advised that the Flathead County Board of Commissioners, meeting in regular session on December 2, 1992, did select Alternate A-1 as the preferred alternate for above referenced secondary road project.

3.4.

Sincerely,

FLATHEAD COUNTY BOARD OF COMMISSIONERS

Howard W. Gipe - Chairperson

Sharon L. Stratton - Member

William R. Hedstrom - Member

cc: Mr. Brad Peterson
Morrison Maierle/CSSA
P. O. Box 6147
Helena, Montana 59604

APPENDIX C - SUMMARY OF THE LOCATION AND DESIGN PUBLIC HEARING

Following pages include a summary of the location and design public hearing which was held on 07 December 1993.

BIG MOUNTAIN ROAD
LOCATION AND DESIGN
PUBLIC HEARING

December 7, 1993

==========

A Location and Design Public Hearing was held on December 7, 1993 in the Community Room of the North Valley Hospital, Whitefish, Montana, concerning the proposed reconstruction of the Big Mountain Road, RS 487-1(5)3. The following is a summary of that meeting:

==========

The meeting was opened at 7:10 P.M. by Terry Richmond of Morrison-Maierle/CSSA. He explained the handouts that were available at the meeting. Brad Peterson - Project Manager - Morrison-Maierle/CSSA - Helena, Sharon Stratton - Flathead County Commissioner, Larry Brazda of the Montana Department of Transportation and Dale Paulson with the Federal Highway Administration were introduced at this time.

Brad Peterson briefly summarized the Environmental Assessment, descriptions of the past alternatives and their impacts and prior scoping meetings. After all the analysis the preferred alternative has been designated by the Flathead County Commission as Alternative A-1. This was also summarized.

Terry Richmond explained rights-of-way, right-of-way acquisitions and property owner's rights in regard to rights-of-way.

The meeting was turned back to Brad Peterson who spoke about limited access control which consists of controlling the approaches to the highway, that when the right-of-way is purchased the right-of-way negotiator would also purchase the access control to the property.

PUBLIC COMMENT:

Craig Mohor had questions regarding the width of the right-of-way and if it would be cleared. Also asked what effect Alternative A-1 would have on the Holbrook Overlook Picnic Area.

Brad Peterson answered that the right-of-way width on the existing road is 60' to 100' and the new right-of-way with Alternative A-1 would be 120' feet wide (60' on each side) which is the standard minimum right-of-way for a roadway of that type and that it could go up to 320' in some of the largest cut and fills. The only part that would be cleared is what would be necessary to construct the cut and fill slopes and what is necessary to provide adequate safety for the roadway. In regard to the Holbrook Overlook Picnic Area, Alternative A-1 will pass just to the north of it, about the same distance from the picnic area that the existing roadway is and will pass through part of the access road that goes down to it, but will not pass through the picnic area, and that part of the access road will be realigned.

Ward McCartney, speaking on behalf of Citizens for a Better Flathead, felt that the Environmental Assessment was flawed, issues that have been inadequately addressed are the impacts to Wisconsin Avenue, highly visible road cuts, mass transit and air quality. He felt that mass transit would help toward air quality problems. Do not meet EPA standards for some days during the winter months due to road dust and automobile exhaust. Need to provide mass transit alternatives. He submitted a written statement.

Brad Peterson stated that the project is to rebuild the Big Mountain Road, not Wisconsin Avenue, that the Environmental Assessment did address the concerns stated, that Wisconsin Avenue does not have the problems the Big Mountain Road is experiencing (grades and traffic problems), also that rebuilding the roadway will not change the traffic much, that the traffic lines will be about the same either way. Mass transit has also been addressed in the Environmental Assessment to the degree that needs to be discussed.

Sharon Stratton, Flathead County Commissioner, said that the Commission has requested that Wisconsin Avenue be on their secondary list should funding still be available. She asked for clarification of the emergency access in and out of Big Mountain in the event that the B-1 was not the selected route, maybe a route could be developed through the logging roads. Not an option, liability on Stoltze's land, not sure that is going to be an option that will be available.

Brad Peterson stated that they recognized there were problems with this, Stoltze is opposed to it because of liability. State Lands have indicated they were very interested in it and would like to work out a solution with Stoltze.

Richard Haney, who owns property on Big Mountain, said the existing road passes through approximately one-half mile of his property. His concerns were that the design of the road will be adapted to the topography, potential visual impacts, that no on-site survey has been accomplished, access to already existing approaches, that any former pavement area which becomes redundant due to realignment should be returned to the adjacent landowner at landowner's option, that the boundaries of the Flathead National Forest (USGS map) are incorrect on south and west sides, and the Big Mountain area is ranked as the highest wildlife risk of 165 sites evaluated by the Department of State Lands. Also, that it would be beneficial if the Big Mountain was selectively logged to decrease wildfire hazard, there is an area that will be logged in the near future, it should not be assumed that private forest land will not be logged. Mr. Haney invited any interested party for an on-site tour of the affected areas within his property boundaries. Mr. Haney submitted written comments in addition to his oral presentation.

Brad Peterson stated that Mr. Haney's concerns would be addressed in the final design when the survey is completed, that extensive field investigations completed, and will include a statement indicating the asphalt will be disposed of properly. Also will explain in the Environmental Assessment that the existing roadway where it is not going to be used will be obliterated, reseeded and reclaimed to what it was before. He added that the real property will be appraised for any land that is purchased which includes timber value on the land. The landowners will be compensated for timber that is taken with the right-of-way.

Richard Haney was of the impression that there was going to be two options; 1) price with the timber and, 2) price without the timber. Also, that the owner had the option, if he wanted to log the property, he could and the value of the timber would be deducted.

Brad Peterson stated that he was not positive how that would work, but the land has value and if it has saleable timber that adds to the value, so any timber value will be added to the value of the land. The same applies to any homes that have to be removed, the owner is given the option to take the house salvage value or the State will dispose of it, whichever the owner prefers.

Jerry Gower, Ptarmigan Owners Association, asked how the Ptarmigan property would be accessed from the A-1 Alternative.

Brad Peterson stated that the existing road at the switchback could be developed into a safe "T" shape or "button-hook" intersection at approximately the current intersection location.

Mike Collins, Winter Sports, asked if the intent was to try to create "T" intersections wherever possible, or will diagonal approaches onto the road be allowed. Also, if the intersection at Ptarmigan would end being a "T" intersection. In the evaluation of A-1 to B-1, was their consideration given to the fact that if the A-1 Alternative was chosen that regular traffic would be dealt with, and if so, is there an incremental cost associated with the Contractor to handle this, vs. B-1 where you could be out there on your own and not be dealing with public traffic. Also, if there is any idea how the reconstruction on the A-1 Alternative, as far as the upper half being clearly new terrain and the lower two-thirds is on an existing right-of-way. Concerned about summer business and access up and down the mountain, not only for guests, but also for those who reside up the mountain.

Brad Peterson said that they would try to create perpendicular "T" intersections as much as possible, will not do anything with a sharp angle unless it absolutely necessary. Regarding the Ptarmigan intersection, what would be done there would be a "button-hook" where there would be approximately 100 feet of straight approach into the highway. It has been identified in the Environmental Assessment that traffic will have to be maintained through construction for most of the length, it is difficult to put a dollar amount on it, but in the estimates there is more money allotted for traffic control then on B-1 since most of the time the Contractor is going to be shuttling traffic through his construction area. The Contractor will probably keep traffic on the existing roadway as much as they can and construct the part outside the existing roadway while keeping traffic on the existing road and then they will try to shift the traffic over from one side to the other, building temporary surfaces for the traffic to travel on while they construct the other half.

Sharon Stratton, Flathead County Commissioner, questioned the economic consideration as to how much loss Big Mountain might suffer during their summertime business. Referred to Nucleus Avenue reconstruction in Columbia Falls which literally killed the businesses there.She also stated if asphalt from the old unused road is not used as fill for the new roadway, the Flathead County Road Department would like to obtain the asphalt to use for recycling for other roadways rather than sending it to the landfill. A written comment was submitted at this time.

Brad Peterson stated that they had no way of putting a number on it, as they have no way of doing that. No economic consideration given other than identifying that there would be an economic loss. He also mentioned that there would be a traffic control plan and part of the construction specifications will describe this, which will include requirements that traffic will be maintained at all times or brief delay periods will be allowed, this plan will include a lot of public awareness (radio advertisements, newspaper advertisements, etc.). Also close coordination with Big Mountain and other businesses in the area.

Richard Cohen reiterated the comments on looking more closely at the whole corridor including Wisconsin Avenue. Questioned passing lanes and if there would be specific areas where vehicles could pull out going both uphill and downhill.

Brad Peterson said these had been mentioned in the documents and that pull outs and passing lanes will be constructed where they can be without significant environmental damage. Do plan on looking at these where possible.

Joan Vetter asked if there would be allowance for runoff on the road on the A-1 route (winter snow runoff) and what would happen to the power lines and if all the power would go out on Big Mountain. Would like to see the existing Big Mountain road be made a scenic by-way, easier and less impact with B-1 Alternative, more rational use of the land if conservation easements were done. Concerned about impact on rivers, air pollution. Has read studies and felt that air pollution was 45% from wood stoves and 45% from road dust. For mass transit as a community supported effort. Thinks width of road very important, No Alternative and A Alternative not approachable.

She would like to see bike paths included, scenic by-ways, turn-offs and lookouts. Asked time line for project and loss of economic dollars.

Brad Peterson said a hydraulic analysis would be done to size the culverts to address run-off. Regarding the power lines, he said he doubted if the power would go out, that the relocation of the power lines would be a parallel relocation and the new power lines would be constructed first. The power should not be out for more than a few hours.

Larry Brazda, Montana Department of Transportation, commented that it is anticipated as being a two year job. Construction specifications would address traffic control and delays likely would be limited to 15 minutes.

Mike Collins, Winter Sports, said that a criteria should be set up for the Contractor, look at the safety perspective of getting vehicles up and down the hill safely. The road is not safe the way it is and wrecks have not been necessarily on the steep corners, but vehicles have rolled off down on the flats between the Eagles Nest and the Ptarmigan.

There being no further comments the meeting was adjourned at 8:30 P.M.

A letter from Steve Hebard, General Manager, Ptarmigan Owners Association was also submitted.

APPENDIX D - CORRESPONDENCE IN RESPONSE TO THE EA AND HEARING

Following pages include correspondence that has been received from members of the public and state and federal agencies in response to the environmental assessment or as a result of the location and design public hearing.

Where appropriate, clarifications or responses are included to the right of each comment.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
BUTTE DISTRICT OFFICE
P.O. BOX 3388
BUTTE, MONTANA 59702-3388

TAKE PRIDE IN AMERICA

IN REPLY TO:

1790 (070)

RECEIVED
OCT 22 1993
MORRISON-MAIERLE/CSSA, INC.

October 21, 1993

Mr. Brad Peterson
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

Dear Mr. Peterson:

We appreciate being notified of the Big Mountain Road Project and being invited to comment on the environmental assessment (EA). The proposed project is not located near BLM lands and would not affect our current management.

Sincerely yours,

James R. Owings
District Manager

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES
Solid and Hazardous Waste Bureau
Solid Waste Program
(406) 444-1430
MARC RACICOT, GOVERNOR
FAX # (406) 444-1499
STATE OF MONTANA
OFFICE LOCATION 836 Front Street Helena, Montana
MAILING ADDRESS: PO BOX 200901 Helena, MT 59620-0901

October 22, 1993

Brad Peterson
Morrison-Maierle/CSSA
P.O. Box 6147
Helena, Montana 59604

RE: Big Mountain Road Environmental Assessment/ RS 487-1(5)3

Dear Mr. Peterson:

This letter is in reference to the Environmental Assessment relative to the above referenced project.

The Department has reviewed the Assessment and has the following questions:

1. If there are to be sweepings on both ends of the project, where will the sweepings be disposed of?

2. During the construction phase, it appears that there will be asphalt excavated from the old road. What will be done with the old asphalt?

Thank you for allowing the Solid Waste Program to comment on this project.

Sincerely,

Louis Thompson
Solid Waste program

Path: F:\USR\CB5450\WP\Misclet\BigMT

"AN EQUAL OPPORTUNITY EMPLOYER"

Items 1 and 2 of this letter were discussed by telephone with Mr. Thompson. These two questions are now answered in section 4.20.2. of the EA.

October 30, 1993

Howard A. Stockwell
874 5th Ave. W.N.
Kalispell, MT 59901

Mr. Brad Peterson, Project Mgr.
Morrison-Maierle /CSSA
P.O. Box 6147
Helena, MT 59601

Re: Project RS 487-1(5)3 Big Mountain Road

Dear Mr. Peterson;

Please consider these comments as an attachment to the Enviornmental Assessment for the above referenced project.

Upon a cursory review of the E.A. I found it to be somewhat biased and incomplete. Primarily pertaining to funding. Nowhere did I find it explained that this estimated 6 million dollar expenditure would be 100% taxpayer funds. 78% federal gas tax and 22% Montana gas tax funds.Also your comparison of 6 million for a reconstructed road verses 6 to 12 million for a tramway is misleading. It should have been noted that a tramway would in fact save the taxpayers 6 million dollars due to no gas tax funds being involved. Allthough it is possible tramway funding could come from some other government source it may be more difficult to obtain since another agency may be reluctant to subsidize a profit making corporation.

Since funding is crucial I feel these points are relevant to an E,A. since any part of this project if approved, aside from the taxpayers burden, would have an adverse effect on our fragile enviornment.

Thank You
Sincerely;

Howard A. Stockwell

Howard A..Stockwell

cc: County Commissioners

As indicated in Section 1., the proposed project will be funded using 80 percent federal funding and 20 percent state funding.

November 4. 1993

RECEIVED
NOV 8 - 1993
MORRISON—MAIERLE/CSSA, INC.

Mr. Brad Peterson
Project Manager
MORRISON-MAIERLE/CSSA
P.O. Box 6145
Helena, MT 59604

Re: Big Mountain Road, RS487-1(5)3
Environmental Assessment (EA)

Dear Mr. Peterson:

Thank you for our copy of the Big Mountain road EA.

As you know, we have long been advocates for Alternative AI which the Flathead County Commissioners, along side the Federal Highway Administration, Montana DOT and the Forest Service (and other agencies) have apparantly 'signed off' on. However, a reading of the EA brings to light a problem area to which some very serious attention is required.

One (of many) objections we have to Alternative B1 is that it's design is indicated to exit dangerously at the power sub-station. The EA figure 3-1 graphically illustrates a similiar problem with A1. In the Appendix, we refer you to the penultimate paragraph in a letter addressed to you dated March 26, 1991 from Stephen F. Herbaly. Planning Director, Flathead Regional Development Officer (FRDO). In that paragraph Mr. Herbaly draws your attention to, "the point where the Woods subdivision, presently undeveloped, accesses onto the Big Mountain Road". We are the owners of both the Woods subdivision and a portion of the access road Mr. Herbaly refers to. He goes on to address the possibility of the Kinnikinnik Golf Resort also using the access road (including the portion we own), "as a secondary access onto Big Mountain Road". He concludes his prargraph, "As you will note this corner already has an unsafe site distance with a subdivision access entering the middle of the corner curve. Major redesign work needs to be done here". "In addition the County needs to adopt more specific policies concerning future access onto Big Mountain Road". (For the record, we note that the resort secondary access road is a unilateral concept of both the developers and the FRDO. As of this date. we have not legally bound and/or obligated ourselves to any agreement whereby the resort or other party can use the road we own).

The Woods subdivision is divided into 17 single family lots. Kinnikinnik is proposed to have, when built out, 704 residences, a resort hotel and an 18 hole golf course, open to the public. Traffic, including buses, would want to exit from the resort secondary road, either going up or down the mountain, and also access the secondary road both coming up and down Big Mountain Road.

It is noted that construction of a major approach to the Big Mountain Road in this area is not desirable because: 1) grades of the Big Mountain Road, in this area, will be 8% or greater which is steeper than desirable for an intersection and 2) horizontal curves are proposed in this area which will reduce sight distance for the intersection. Also, see Section 4.10.2.2.

13

Mr. Brad Peterson
Morrison-Maierle/cssa

Page 2

We therefore question how you intend to make both the exit and access a safe driving experience. Also, there is the power sub-station to consider and contend with. Not only is the substation very unattractive to anyone passing by, it's location is inherently dangerous at the juncture of a heavily travelled intersection consisting of A1 and the proposed Woods/ resort secondary road. We also question the dollar cost to engineer a safe exit and access.

We note that you propose to design A1 to skirt around the west side of the power sub-station. This approach will require both extensive engineering and construction dollars to 'flatten' out what is a very precipitous grade which falls off to the west side of the station. Additionally, it appears that purchase of considerable and expensive private land will be required to straighten the approach to the station.

We believe, therefore, that it would make both engineering and economical sense to have the power sub-station moved to another, more favorable location; possibly to land controlled by the ultimate end user of the electricity, which is Winter Sports. The result should generate substantial dollar savings in construction and ancillary costs by not having to:

- purchase expensive private land
- spend large sums to fill in, faltten out and build a road over what is now a precipitous drop off.

We do realize, however, that the utility has considerable sunk capital costs invested in the present site. However, professional and political wisdon effectively presented might well convince the utility of it's best PUBLIC interest to voluntarily vacate the present site for another location. In the interest of PUBLIC SAFETY, could not the aggregate savings realized from not having to do 'major redesign work', be used to offset some of the utilities relocation/start-up costs.

To secure preliminary answers as to costs associated with construction of A1, we would appreciate learning from you what you estimate the cost would be to:

1) build A1 around the power station as shown in figure 3-1.
2) build A1 thru the power station site as if the station were not there.

Thank you in advance for your answers to the above questions, and please accept this letter as a documented response to request for EA feedback.

Very truly yours.

Stephen O. Richards

cc: Stephen F. Herbaly

631 La Peninsula Blvd.
Naples, Fla. 33962
phone/fax (813)642-9832

Problems and difficulties related to relocation of the power substation are discussed in Section 3.2.8.

At the request of Mr. Richards, an analysis was completed which indicates that, not considering the cost of relocating the substation, no substantial differences in construction costs would result. As indicated in Section 3.2.8., relocation of the substation is estimated to cost at least $900,000.

9101.95 020 F

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES
AIR QUALITY BUREAU

COGSWELL BUILDING
1400 BROADWAY

STATE OF MONTANA

(406) 444-3454
FAX (406) 444-1374

PO BOX 200901
HELENA, MONTANA 59620-0901

December 3, 1993

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, MT 59604

Dear Mr. Peterson:

After reviewing the Environmental Assessment of Big Mountain Road Project RS 487-1(5)3, Flathead County the Air Quality Bureau (AQB) has the following comments to make. The most pressing comment is that at the time you requested AQB comments on the air quality in Whitefish (January 1992) the area was in attainment or unclassifiable for air quality. However, in February and March of 1992, Whitefish had eight exceedances of the 24-hour PM-10 National Ambient Air Quality Standard (NAAQS). As a result of these exceedances, Whitefish was designated as nonattainment for PM-10 on October 19, 1993. Because of this designation, many of the comments related to air quality in the Environmental Assessment document are now inaccurate and should be corrected.

The non-attainment designation is now discussed in Section 4.3.1.

Project Description

Flathead County, the Montana Department of Transportation and the Federal Highway Administration are proposing that approximately five miles of the Big Mountain Road from East Lake Shore Drive near the City of Whitefish to the Big Mountain Ski and Summer Resort be reconstructed. The proposed improvements will include reconstruction of the roadway either on its existing alignment or on a new alignment, the acquisition of right-of-way and construction of related drainage structures, erosion control, re-topsoiling, seeding, guardrail, signing, striping, utility relocations and other features.

Corrections are reflected in Section 4.3.

While new lanes will not be added, the existing two lanes will be widened. Additionally, left turn bays and truck climbing lanes will be added where feasible. The project has been designated a Federal Aid Secondary Highway, and will have 80% federal funding under the Intermodal Surface Transportation Efficiency Act of 1991. The remaining 20% will be funded by the State of Montana.

An environmental assessment (EA) was prepared and released for public comment on September 22, 1993. On January 10, 1992, the AQB commented that the possible impacts the project could have on the air quality in the area were shown to be insignificant. However, in February and March of that year, the City of Whitefish experienced eight exceedances of the National Ambient Air Quality Standard (NAAQS) for PM-10 (particulate matter with an aerodynamic diameter of ten microns or less). In

Noted in Section 4.3.1.

addition, it has been brought to AQB attention that the Big Mountain Ski Area is proposing a significant expansion. This proposed expansion, in combination with the upgrade to the existing road condition, seems to indicate that traffic on the Big Mountain Road will increase more substantially than was indicated at the time AQB originally commented on the project. In light of these changes which occurred following the initial comments, AQB would like to submit the following additional comments.

The Big Mountain Ski and Summer Resort Expansion is discussed in Section 2.7.

Air Quality Status

The City of Whitefish recorded violations of the NAAQS for PM-10 and was federally designated as nonattainment for PM-10 on October 19, 1993. As a result of this designation, an emission control plan with enforceable control strategies is required to be developed and submitted to EPA. The AQB is currently conducting source apportionment studies to determine the major contributing sources of PM-10 emissions in the area. Since the studies will not be complete until the Spring of 1994, the AQB can only estimate the major contributing sources of PM-10 in the area. Based on previous source apportionment studies conducted in the nearby PM-10 nonattainment areas of Kalispell and Columbia Falls, it is likely that the major sources of PM-10 emissions in Whitefish are re-entrained road dust and residential wood burning. Since emissions from re-entrained road dust increase proportionately with an increase in vehicular traffic and this project will most likely result in an increase in traffic, this project could have a significant impact on the PM-10 emissions in Whitefish. It should also be noted that a portion of this project is located within the nonattainment boundaries of Whitefish.

The non-attainment designation is now discussed in Section 4.3.1.

The AQB also has concerns about increases in carbon monoxide emissions. Although carbon monoxide levels have not been measured in the Whitefish area, high concentrations may occur in the downtown area due to increases in automobile exhaust in conjunction with air stagnations. If this project, in conjunction with the Big Mountain expansion, increases traffic and congestion in the downtown area, carbon monoxide emission violations may occur.

The proposed project is not expected to cause an increase in traffic volumes in the downtown area of Whitefish over what would occur without the project.

Conformity Requirements

The 1990 Federal Clean Air Act Amendments (Act) establish new requirements for federal projects permitted or otherwise authorized by a federal agency. On November 15, 1993, EPA published final criteria and procedures for determining conformity to State Implementation Plans of Transportation Plans, Programs and Projects funded or approved under Title 23, U.S.C. or the Federal Transit Act. The AQB is currently reviewing these regulations and will need to further comment on the conformity requirements specific to this project once the review is complete. For your own benefit, it is recommended that you obtain a copy of the final conformity rules and interpret them simultaneously. There is a possibility that this project may fall under categorical exemptions. However, from a cursory review of the final rule, it appears that this project is required to demonstrate conformity. Until proved otherwise, the AQB will continue to work under the assumption that a conformity determination is required for this project.

Comments noted.

The AQB believes a conformity determination is required, according to the final rule, because it is a federal transportation project which lies within the nonattainment boundaries.

Responsibility for Conformity Determination

The final rule clearly designates the authority and responsibility for conformity determinations to the federal agency authorizing the project. State and local air pollution control agencies are relegated to an advisory role. This conformity determination must be completed before the final approval of the project.

Upon a cursory review of the final rule, it appears that most projects should conform with the emission budgets inherent in the SIP. However, since neither a SIP nor emission budget has yet been submitted for Whitefish, a build/no-build scenario is necessary for this project. Further defined, a build/no-build scenario is a comparison of projected emissions from vehicles if the project is adopted to what the emissions would be if the project is not adopted. In the build/no-build scenario, the build scenario must show lower emissions than the no-build scenario.

If the proposed project can not demonstrate a reduction in PM-10 emissions, mitigating measures must be implemented. Possible mitigation measures could be increased frequency of sweeping, use of a coarser sanding material, use of liquid deicer, etc. Since the PM-10 SIP for Whitefish is still being developed, these mitigating measures could be incorporated into the control strategies for the SIP. The authorizing agency should be aware that as the SIP (or emission control plan) for Whitefish is being developed, it is likely that control strategies for the reduction of PM-10 emissions from all roads in the area, including Big Mountain Road, will need to be enforced once the SIP is submitted to EPA.

Air Quality Impacts During Construction

Besides the possible impacts from the project after construction, the AQB believes that certain practices should be followed during the construction phase of a project in order to keep PM-10 emissions to a minimum.

Highway projects during the construction phase have historically contributed significant emissions of PM-10 from re-entrained road dust, increased traffic flow through detours, and slash burning from right-of-way clearing.

In order to reduce the emissions of PM-10 from this project, the AQB strongly suggests the following during the construction phase of the project:

1) Daily street sweeping on both ends of the project during the construction phase. This will reduce the major carry-on of dirt from the project onto the paved streets within the nonattainment boundaries.

After a careful review of the referenced regulations and as discussed in Section 4.3.2., the AQB has concurred (see 10 February 1994 letter from Gretchen Bennitt to Brad Peterson) that the proposed project is exempt for conformity analysis and is not required to demonstrate conformity.

These suggestions for mitigation of potential air quality impacts have been incorporated in Section 4.3.3.

14b

2) If any detours are unpaved, they should be watered and/or chemically stabilized so that the emissions are less than 5% opacity.
3) Any slash being burned due to right-of-way clearing should be stacked with a brush blade and cured. Open burning restrictions must be followed, and a major open burning permit and fee may be required by the county.
4) Asphalt plants and gravel crushers in the immediate vicinity are also significant contributors to PM-10 emissions from highway construction. An air quality permit must be obtained from our office to operate crushers and asphalt plants in Montana.

The AQB is not limiting its comments on the proposed project at this time. Since AQB is still reviewing the newly released conformity rule, additional issues may arise at a later date. Additionally, AQB believes that discussions involving the possible mitigations and conformity determinations will be to both of our benefit. I look forward to meeting you, and disussing this project further. If you require further information, please contact me.

Sincerely,

Gretchen Bennitt

Gretchen Bennitt
Air Quality Specialist

GB:dl

ptarmigan
village
P.O. BOX 458
WHITEFISH, MT 59937
(406) 862-3594

December 8, 1993

Flathead County Commissioners

Dear Commissioners:

The purpose of this letter is to contest alignment alternative A1 of the Big Mountain road.

It is startling that alignment A1 has been chosen by the County Commissioners without mention of plans for alternative access into Ptarmigan Village. For a project with such direct impact on over 300 property owners, the plans should provide more accurate and detailed information to the Ptarmigan Owners Association.

The Environmental Impact document is incomplete. Ptarmigan Owners Association opposes alternative A1 until detailed, accurate mapping is provided.

Sincerely,

Steve Hebard
General Manager
Ptarmigan Owners Association

/SH

As indicated in Section 4.10.2.2., an approach meeting standards of AASHTO and the Montana Department of Transportation will be constructed to provide appropriate access to Ptarmigan Subdivision. Sufficient analysis and design has been completed to ensure that the approach can be reasonably constructed. As more detailed design begins, more complete surveys will be done and the various options for providing the approach will be developed, evaluated and discussed with representatives of the subdivision.

WRITTEN COMMENTS
LOCATION AND DESIGN PUBLIC HEARING, 07 DECEMBER 1993
RS 487-1(5)3, BIG MOUNTAIN ROAD, FLATHEAD COUNTY

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the completion of the environmental assessment and the determination of impacts for the proposed project. Comments can be left at the meeting or can be mailed to:

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

We would appreciate receiving your comments by 07 January 1994.

If asphalt of "old unused" road is not used as fill for new roadway - the Flathead County Road Dept. would like to obtain the asphalt to use for "recycling" rather than sending to the landfill.

This comment has been noted in Section 4.20.

Please indicate your name, address and affiliation (if applicable) on the lines below. Thank you for your interest in this project.

Name and Address: Sharon L Stratton
Flathead County Commissioners
800 So Main
Kalispell, MT 59901

WRITTEN COMMENTS
LOCATION AND DESIGN PUBLIC HEARING, 07 DECEMBER 1993
RS 487-1(5)3, BIG MOUNTAIN ROAD, FLATHEAD COUNTY

RECEIVED
JAN 5 REC'D
MORRISON-MAIERLE/CSSA, INC

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the completion of the environmental assessment and the determination of impacts for the proposed project. Comments can be left at the meeting or can be mailed to:

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

We would appreciate receiving your comments by 07 January 1994.

Jan. 2, 1994
Dear Mr. Peterson,

A 40 ft. roadway would no doubt be the answer to speedy, but more dangerous, transportation on the Big Mountain Road. Let's keep the road to 32 ft, produce less scarring on the side of the mountain, and give mass transit, with sober, experienced, specially licensed drivers employment. Tourists could experience a pleasant relaxing scenic ride to and from the recreational facilities at the end of the road instead of an anxiety trip in (over)

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

As indicated in Section 3.2.6., increasing the use of mass transit to the Resort is a desirable objective and any improvements to the Big Mountain Road should be and will be designed to enhance and not to hinder or preclude mass transit. Improvements to the road are needed, however, with or without the implementation of proposed mass transit alternatives.

Please indicate your name, address and affiliation (if applicable) on the lines below. Thank you for your interest in this project.

Name and Address:

Mrs Margaret Murdock
185 Reservoir Rd
Whitefish MT 59937-8102

private land owner east of Wisconsin Ave. / south of Reservoir Rd.

Additional Comments: unfamiliar turf. Please note Highlighted portions of news clips attached.

The impact of road building on private land owners is devastating. These people must be compensated for every inch of soil that is disturbed and every bd. ft. of timber, or potential timber that is removed. Even though timber harvesting is not an annual occurance like grain, it is non-the-less a commodity that is increasing in value at a record rate. The property owner must also be provided approaches to his/her property wherever it is most desirable for his/her land use plans. The notion that it is acceptable to destroy A so that B can prosper is disgusting!

Thank you -
Margaret Murdock

Where it is necessary to convert private property to highway right-of-way, an appraisal will be conducted and fair market value will be paid for the land and for existing improvements. The value of existing timber will also be determined, using the appraisal process, and the landowner will be compensated.

If limited access control is implemented, it is likely that existing approaches will remain unless alternative acceptable access can be provided in another location. Future approaches will be generally prohibited. Landowners will be compensated for the loss of access.

WRITTEN COMMENTS
LOCATION AND DESIGN PUBLIC HEARING, 07 DECEMBER 1993
RS 487-1(5)3, BIG MOUNTAIN ROAD, FLATHEAD COUNTY

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the completion of the environmental assessment and the determination of impacts for the proposed project. Comments can be left at the meeting or can be mailed to:

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

RECEIVED
DEC 17 1993
MORRISON-MAIERLE, INC

We would appreciate receiving your comments by 07 January 1994.

Dear Mr. Peterson! After giving my comments tonight, I wanted to clarify that I am in favor of the A-1 alternative for reconstructing Big Mt. Rd., However I still feel that a 32' wide road instead of the present 20' to 28' wide road would be adequate and that the visual impacts that a 40 foot wide road are going to nessecitate are not justified. Also rebuilding the Big Mt. rd and inviting

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

Please indicate your name, address and affiliation (if applicable) on the lines below. Thank you for your interest in this project.

Name and Address: Ward B. McCartney 12/7/93

WARD B. MCCARTNEY II
7227 ~~7336~~ FARM TO MARKET RD.
WHITEFISH, MT. 59937-8305

Additional Comments: more traffic up and down it without considering the impacts on Wisconson Rd, which is presently inadequate and which has more traffic use year around and should be rebuilt first is poor planning. I find it frustrating to propose mass transit as a part of the project ~~and have~~ had at last October's public hearing where 60% of those attending supported mass transit and again at tonight's meeting and have it summarily rejected. To quote your information flyer that you handed out, "A-1 will improve efficiency on roadway which will reduce air pollution and decrease energy use" wouldn't mass transit do a better job? wouldn't mass transit alleviate traffic density on Wisconson Ave, and Big Mt. Rd, making a 32 foot Rd more feasible and help mediate future traffic growth and impacts on Wisconson? Mike Collins, the CEO of Big Mt. was concerned about traffic delays of ½ hour during reconstruction of the road during the summer, the off season compared to the winter and yet look at the want bus system, 7 buses up and 7 down, or over an hour between buses, it's no wonder no one uses them. I asked people (local and out of town) that I happened to talk up on the chair lift last year whether they would

Section 2.9. recognizes the need and desirability of Wisconsin Avenue improvements but also indicates that no improvement projects are currently programmed. The Flathead County Commission has indicated that Wisconsin Avenue is a high priority and should be improved as funding becomes available.

Advantages and benefits of mass transit are recognized and discussed in Section 3.2.6. Improvements to the Big Mountain Road are needed with or without the implementation of mass transit alternatives. Development of mass transit alternatives should be encouraged and supported. The proposed project will encourage and enhance the improvement of bus service to the Resort.

Use a Bus to Get to Big Mt. instead of Driving if:

1. It were Free
2. It ran on a 10 or 15 minute Headway
3. It Dropped them off a the Base of a Lift so they Didn't Have to wade through a Parking Lot
4. Provide a Free Parking Lot at various locations around Whitefish
5. They rode in medium sized Busses.

Nine out of Ten said that they would take the Bus.

Yes the New road will be an improvement over the existing road, But it will still be a mountain road, steep, slippery, and icy. The masonity of skiers are on vacation and want to relax and Have a Beer on to and Leave the Driving Down the Mt. to some one else. We Don't Need a super Highway to Big Mt. We Do Need Rapid transit.

WRITTEN COMMENTS
LOCATION AND DESIGN PUBLIC HEARING, 07 DECEMBER 1993
RS 487-1(5)3, BIG MOUNTAIN ROAD, FLATHEAD COUNTY

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the completion of the environmental assessment and the determination of impacts for the proposed project. Comments can be left at the meeting or can be mailed to:

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

RECEIVED
DEC 20 1993
MAIERLE

We would appreciate receiving your comments by 07 January 1994.

12/4/93 Would like to see some plans for mass transit, very very important.
Also, downsize to 32 foot road, as landscape may dictate, use savings for other aspects of improvement.
Include Wisconsin Ave into the improvement - needs widening, needs either shoulder or pedestrian walkway.
Thank you

Please indicate your name, address and affiliation (if applicable) on the lines below. Thank you for your interest in this project.

Name and Address: MARCIA HUYS
P.O. Box 4015
Whitefish, MT 59937
Citizens for a Better Flathead

Advantages and benefits of mass transit are recognized and discussed in Section 3.2.6.

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

Section 2.9. recognizes the need and desirability of Wisconsin Avenue improvements but also indicates that no improvements projects are currently programmed. The Flathead County Commission has indicated that Wisconsin Avenue is a high priority and should be improved as funding becomes available.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
100 N PARK, SUITE 320
HELENA MT 59601

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

RECEIVED
DEC 13 1993
MORRISON-MAIERLE/CSSA, INC.

M.17 (Big Mtn. Road)

December 10, 1993

Brad Peterson, P.E.
Project Manager
Morrison Maierle/CSSA
P.O. Box 6147
910 Helena Avenue
Helena, MT. 59604

Dear Mr. Peterson,

This is in response to your letter requesting that the Fish and Wildlife Service (Service) review the Environmental Assessment pertaining to Federally listed threatened and endangered species for the proposed Big Mountain Road, Flathead County, Montana.

The Service has reviewed the Environmental Assessment and concurs with the determination that the proposed project preferred alternative (Alternative A-1) is not likely to adversely affect the endangered bald eagle (Haliaeetus leucocephalus) and threatened grizzly bear (Ursus arctos horribilis) and with the no effect determination for the endangered gray wolf (Canis lupus) and peregrine falcon (Falco peregrinus). In addition, the Service does not anticipate any incidental take of listed species as a result of the proposed project. Therefore, pursuant to S402.13 (a) of the 50 CFR, formal consultation is not required. If, after public review and comment, the final project design is changed so as to have effects on threatened or endangered species other than those described in the biological assessment, a revised biological assessment will need to be prepared. The Service will then issue a letter of concurrence/non-concurrence on the revised biological assessment.

We appreciate your efforts to ensure the conservation of these threatened and endangered species as a part of your responsibilities under the Endangered Species Act, as amended.

Sincerely,

Kemper M. McMaster
Field Supervisor
Montana Field Office

RMH/rmh

These comments are noted in Section 3.4. Impacts on threatened and endangered species are further discussed in Section 4.12.

CITIZENS FOR A BETTER FLATHEAD
P.O. Box 7082
Kalispell, MT 59904-0082
406-755-9393

RECEIVED
DEC 16 1993
INC.

December 14, 1993

PUBLIC COMMENT ON THE BIG MOUNTAIN ROAD DRAFT ENVIRONMENTAL ASSESSMENT, PROJECT RS-487-1(5)3, FLATHEAD COUNTY

Citizens For A Better Flathead realizes the importance of Big Mountain to our community and the need to reconstruct the Big Mountain Road. We feel that it should be clearly understood that we do not wish to delay this reconstruction project. We are in favor of an improved Big Mountain Road.

Comment noted.

We do, however, feel strongly that the Environmental Assessment is flawed in the same way that the U.S. Highway 93 EA was years ago. It is the intent of the EA process to discuss and analyze all of the issues as identified by the consultant, the governmental agencies, and the public, and then after thorough analysis make a recommendation. Unfortunately, many of the issues surrounding negative environmental impacts to the community of Whitefish have been summarily ignored or treated too lightly by the report.

Comment noted.

The problems associated with automobile traffic from Whitefish to Big Mountain cannot be solved by only looking at the auto as a solution. A comprehensive look at the entire transportation corridor and the desires of the community affected are important. More progressive, creative thought is needed to maintain and improve our quality of life in the Flathead.

Comment noted.

Issues which have been inadequately addressed are:

* Impacts to the Wisconsin Avenue corridor - limited right of way and narrow pavement width; safety along roadway for children, pedestrians and bicyclists.

It is indicated in Section 2.9. that, though improvements to Wisconsin Avenue may be desirable and needed, no funding sources are available at this time. The proposed improvements to the Big Mountain Road are being planned because needs, as stated in Section 2., are greater on this section of roadway than on Wisconsin Avenue and on other roadways in the area.

* Corridor segmentation - with improvements to the viaduct and Big Mountain Road, increased speed and traffic volume are encouraged without addressing impacts to Wisconsin Avenue - the link in the corridor.

* Pedestrian and driver safety - as noted at the third scoping meeting, only one fatality has occurred on the Big Mountain Road. Is this because the current road does not encourage high speed travel? The current road has only 4 curves which can be negotiated at 40-50 MPH, as compared to at least 9 curves in the recommended alternative.

Section 2.5. identifies accidents that occurred during the 6 six year period from 1985 to 1990. This section also notes that the lower and upper switchbacks have been recognized in the past as some of the highest accident locations in Flathead County. The proposed project is expected to improve safety because it result in improved horizontal and vertical alignments, wider shoulders, flatter cut and fill slopes and improved intersections.

* Visual impacts - The recommended 40' road bed will require cut and fill slopes of up to 200' vertical feet. The visual impacts of these extensive cuts from various viewing

As indicated in Section 4.18.2, proposed Alternative A-1 will create cut slopes up to 95 feet high and fill slopes up to 60 feet high. The height of these slopes can be reduced by using retaining walls or steeper, reinforced slopes. Various other mitigation measures are proposed in Section 4.18.3.

points have not been adequately addressed in the DEA.

* Air quality - A major source of air pollution in the Flathead Valley comes from road dust resulting from winter road maintenance. The analysis of this issue in the DEA presumes that "dust pollution is not a problem during most times of the year ... most dust pollution (PM-10) occurs for short periods in the spring after the last snow has fallen and the roadway sanding materials, not yet removed from the roadway, begin to dry out" (4.3.1.). In actuality, road dust is a problem for many periods throughout the winter, and for many months during the spring and fall.

Air quality is addressed in Section 4.3.

* Mass transit alternatives - During the third scoping meeting, a show of hands indicated that approximately eighty percent of the participants desired the development of a mass transit alternative. A mass transit alternative could mitigate or eliminate many of our stated concerns.

As indicated in Section 3.2.6., increasing the use of mass transit to the Resort is a desirable objective and any improvements to the Big Mountain Road should be and will be designed to enhance and not to hinder or preclude mass transit. Improvements to the road are needed, however, with or without the implementation of proposed mass transit alternatives.

* Implementation of the intent of ISTEA.

The specific intent of this comment is not understood.

The design recommendation in the Draft Environmental Assessment calls for Alternative A-1 to be built to a 40' wide roadway. The road is currently 20-24' wide. Down-sizing the project from a roadway width of 40' to 32' could provide a cost savings of roughly .5 to 1 million dollars. This savings should be used toward immediately addressing overall transportation issues, including Wisconsin Avenue and mass transit alternatives.

Reasons why a 32 foot wide roadway width was not selected for this project are listed in Section 3.2.9.

In summary, CFBF recommends a more thorough analysis of the issues listed above, and suggests proceeding with a down-sized reconstruction project while immediately conducting a separate mass transit and overall transportation study for the entire corridor through Whitefish.

Comment noted.

Thank you for your consideration of our concerns and recommendations.

Sincerely,

Bruce Boody, Co-Chair
Transportation Committee

Judy Cornell, Co-Chair

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES
WATER QUALITY BUREAU

STATE OF MONTANA

1400 BROADWAY
PO BOX 200901
HELENA, MONTANA 59620-0901
FAX (406) 444-1374
Phone (406) 444-2406

Mr. Brad Peterson
Morrison-Maierle/CSSA
Box 6147
Helena, MT 59604

Re: DHES/WQB Comments on Big Mountain Road EA

Dear Mr. Peterson,

We have reviewed the Big Mountain Road EA and offer the following comments.

Water quality protection in Haskill Creek, particularly the Second Creek Watershed, is of utmost importance due to its use by the City of Whitefish as a municipal water supply. Haskill Creek to the Whitefish water intakes is classified A-1 (ARM 16.20.605) and is afforded fairly stringent protection under the Montana Surface Water Quality Standards (ARM 16.20.617). Consequently, it is essential that strict water quality protection practices be implemented with any of the proposed road construction activities.

Although all the proposed action alternatives, with appropriate mitigation, appear to afford water quality protection, Alternatives A and A-1 pose the least threat to water resources. Therefore, to provide maximum water quality protection while meeting transportation objectives for Big Mountain we support the preferred alternative, Alternative A-1.

Thank you for the opportunity to comment. If there are questions regarding our comments, please contact me at 444-5316.

Sincerely,

Steve Tralles

Steve Tralles
Water Quality Specialist
Montana Water Quality Bureau
Environmental Sciences Division

Comments noted.

21

Morrison-Maierle/CSSA
221 Parkway Drive
Kalispell, Montana 59901

December 20, 1994

Dear Sirs,

Recently we read with interest, an article by Don Schwennensen in the December 10th Missoulian. The article dealt with the proposed changes to the road up Big Mountain to the ski resort. Being a Big Mountain skier , we have cursed the present road and many of the drivers on the road heartily for many years.

With this in mind, the first thought was to hop on the bandwagon and be in favor of a new road in the general location of the old one. Unfortunately, the new road which has been proposed will destroy far too much forest and create unbelievable erosion problems because of forest and undergrowth destruction. It, likewise, will not solve the problem of a second access road which could well be needed in time of emergency (fire, avalanche - snow or earth, or vehicular accidents, etc.) We believe the comments of Richard Haney is regards to fire and responsible logging are very apropos and should be listened to and followed.
In view of this, we have some alternative suggestions;

1). An overhead tram or a cog railway to carry all skiers and visitors and their baggage from the bottom of the mountain to the base village. Private vehicles or buses would not be allowed up the road. The road would be used only for commercial supply and emergency vehicles.

The homes and condominiums in the base area and on the mountainside would be served by a mini bus system locate at the mountain village. Eliminating all private vehicles from the mountain village and mountainside would make the village a far more attractive, pleasant place to vacation and live The problems of parking for vacationers and local visitors could more easily be addressed with a guarded long and short term parking facilities at the bottom of the mountain.

The advantages and disadvantages of using a tram or a cog railway are discussed in Section 3.2.6.

2). My other suggestion would be to create a second new road from the base of the mountain to the mountaintop village. This would allow one of the roads to be used as access up to the village and the other road to be used as access down to the base of the mountain. One way traffic only! This suggestion would not solve the excess of vehicles on the mountain, nor, would the vehicle free atmosphere and relaxation be created.

The advantages and disadvantages of constructing a one-way couplet are discussed in Section 3.2.5.

If the second road option is acted upon, the owners of the land the road would cross would have to be held free, by statute, of all liability for accidents or whatever on or near the road.

We were very disappointed to read that the owners and operators of Winter Sports, Inc. downplayed the fire hazard on The Big Mountain. They obviously have never been exposed to a major forest fire. We suspect their firefighting equipment would be inadequate for a dense forest forest fire. As Mr. Haney pointed out many areas of the Big Mountain are ripe for fire due to the heavy growth which has naturally occurred since the last fire in 1910.

In most respects, we do believe the tramway option would be most acceptable. We suspect the initial large costs would be recovered by the increased interest of skiers and vacationing public in the almost pristine atmosphere of the area.

Sincerely,

Dudley H. and Ann M. Page

Comment noted.

The advantages and disadvantages of using a tram or a cog railway are discussed in Section 3.2.6.

22a

Dear Mr. Peterson - 12/23/93

I am very much in favor of a mass transit system for Whitefish. Having lived in Vail & Aspen some I have seen small buses with ski racks can really help to solve transportation & parking problems as well as cut down on valley air pollution. The ugly road you have proposed is going to be too wide and an eye sore from as far away as Somers. Please rethink your plan.

-Betsy Rohnstamm, CFBE

KOHNSTAMM
573 SOMERS AVE.
WHITEFISH, MT 59937

KALISPELL, MT 59901
PM
DEC
1993

DEC 28 1993 19

MORRISON-MAIERLE/CSSA, INC.

Mr. Brad Peterson
Morrison-Maierle/CSSA
Box 6147
Helena, MT 59604

Advantages and benefits of mass transit are recognized and discussed in Section 3.2.6.

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

F.H. STOLTZE LAND & LUMBER CO.

Lumber Manufacturers
Box 1429 • COLUMBIA FALLS, MONTANA 59912
PHONE (406) 892-3252 • FAX (406) 892-1612

RECEIVED
DEC 30 1993
MORRISON-MAIERLE/CSSA, INC.

December 28, 1993

Brad Peterson
Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

Dear Mr. Peterson:

I attended the public hearing you conducted on December 7, 1993 concerning the proposed reconstruction of the Big Mountain road. I have three areas of concern after hearing your presentation.

1. You are proposing that this be a "Limited Access Highway". We have problems with this proposal from a future land management standpoint. There are two points which we currently have access. One is at the current Whitefish Lookout road, (approximately 3/16 mile North of the South Line of Section 11, T31NR22W) and a new location to be built in the summer of 1994 just North of the Holbrook Overlook Picnic Area. I have shown both of these locations on the attached map and included copies of the legal documents relating to both roads. From a future land management standpoint, limiting access will reduce land values and prevent much of the adjoining area from being managed for forest resources or any other use. This area must be managed for the forest resources if you are going to control future wildland fires in the area. With the proposed residential population on the Mountain, fire control is a must. Also with the numerous ownerships, the steep slopes and moist ground conditions there are not a lot of alternatives for access.

   Perhaps there could be provisions made to allow temporary access to do forest management activities. If this is not possible then this cannot be a "Limited Access Highway".

It is anticipated that provisions can be made, with the implementation of limited access control, to provide for the access needs discussed in this paragraph.

2. In all of the public meetings there has been talk of having an emergency access road leaving the Big Mountain complex and following Haskill Creek to the east along the existing forest access roads we currently have through our ownership. I am concerned about this proposal in light of the current requirements for emergency access

These comments are noted. The desirability of the alternate emergency access route and the problems it presents to F.H. Stoltz Land and Lumber Company are also discussed in Section 3.2.7.

roads. I have enclosed a copy of the "Fire Protection Guidelines for Wildland Residential Interface Development". On page 6 the secondary road access is addressed which shows the road must have a 20 foot surface and vegetation cleared 4 feet from each side. This road requires 3.39 acres of land per mile of road to be dedicated to this emergency access. None of our existing roads in Haskill Basin meet these requirements and we do not feel we want to have them reconstructed to the above standard. Present roads are sufficient to provide access for our forest management activities. If alternitve B1 had been chosen this problem would have been addressed.

3. Having had some experience with road locations in this area, I am concerned about the extremely large cuts and fills you are proposing. Even if you use retaining walls so you can make the cut and fill slopes steeper you will still have very large areas of base soil that you will need to control sediment on. It is my understanding that in the area of the lower switchback you are to have a 90 foot cut. It seems that it will be nearly impossible to screen this area so that it cannot be seen from the valley. Whatever type of retaining walls you use must be of the color that blends them into the surrounding terrain. What happens if after the design is completed retaining walls are needed for much of the length of the road and the cost increases, say $10 million? Do you come back to the public and ask if they still want to build the road as presented or consider other options? I realize it is very difficult to be specific with design questions at this point in preparing the environment assessment, however I feel there have been decisions made without knowing the full ramifications of those decisions.

Since our company will be affected by your decisions, please keep me informed.

Sincerely yours,

Ronald H. Buentemeier

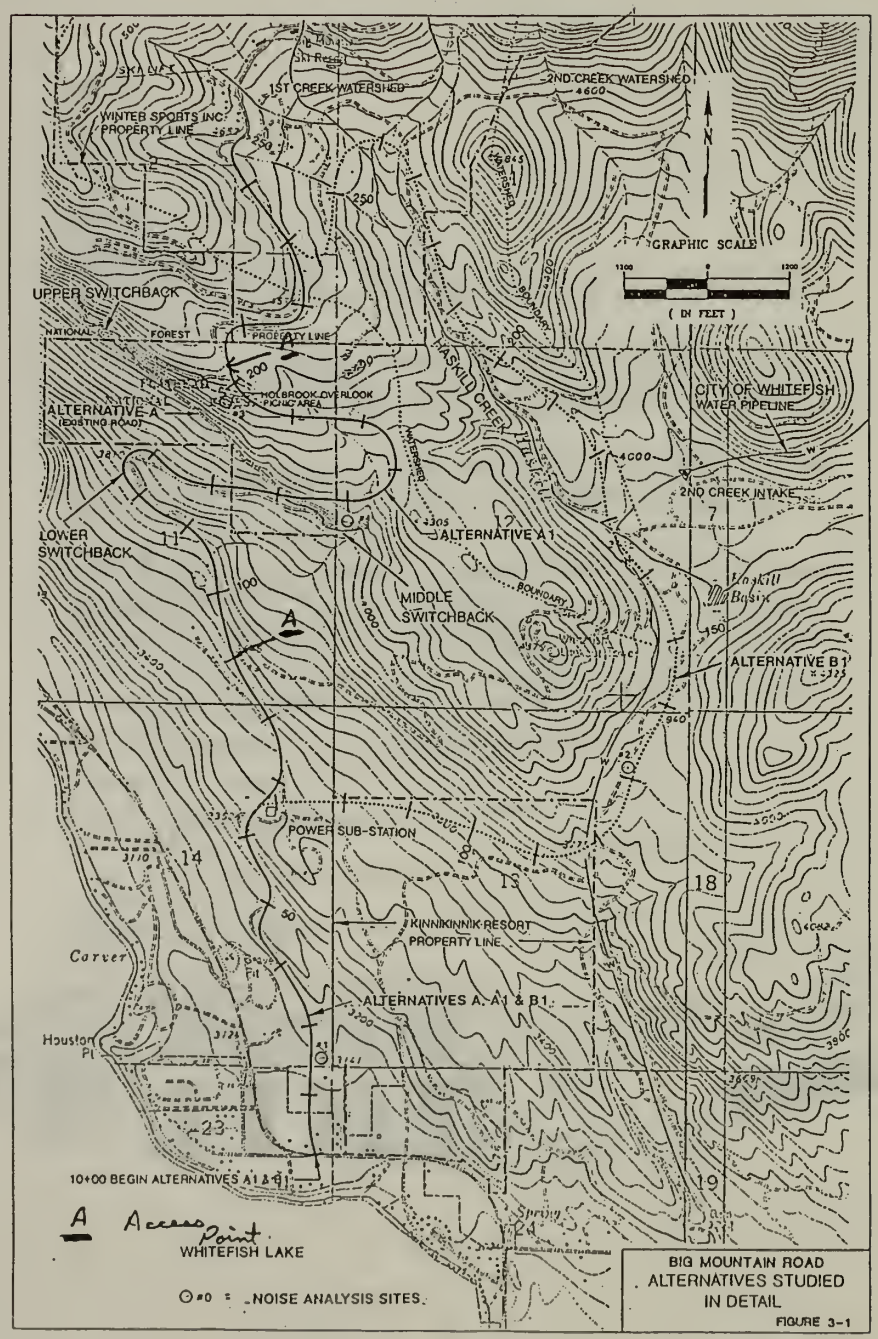
Ronald H. Buentemeier
Timber Manager

RHB/bw

cc: Flathead County Commissioners

The large cuts and fills discussed in the EA and shown on the preliminary plans for this project are based on using standard slopes and were intended to demonstrate the maximum heights anticipated. Methods to reduce the height of these cuts and fills, such as retaining walls, reinforced slopes and others, will be evaluated as more detailed design is completed. Where it is determined that the benefits of these methods outweigh the costs, they can be included with project construction. Construction cost estimates presented in the EA recognize the construction difficulties in the project area and have allowed for these additional costs.

24a



BIG MOUNTAIN ROAD
ALTERNATIVES STUDIED
IN DETAIL

FIGURE 3-1

TIME
INSURANCE AGENCY
LIFE & HEALTH DIVISION
240 WEST IDAHO PH. 406-755-1199
P.O. BOX 9020 • KALISPELL, MONTANA 59904

December 29, 1993

Brad Peterson
Morrison-Maerle/CSSA
P.O. Box 6147
Helena, Mt. 59604

Dear Mr. Peterson

I would like to comment on the proposed road to Big Mountain. I agree with the enclosed letter that the proposed road to the mountain in to big. I have driven the current road for 13 years an average of 50 times. I have never had a problem. This equates to 650 times up and 650 times down. Most people who have problems are poor drivers going too fast. If the proposed speed is increased to 45 or 50 mph people will drive 55 or 60 mph.

Comment noted.

Instead of a few going off the road and getting stuck you will have fatalities. Unless you reconstruct the entire distance to Hwy 93 you will still have a traffic slow down on Wisconsin.

Section 2.9. recognizes the need and desirability of Wisconsin Avenue improvements but also indicates that no improvements projects are currently programmed. The Flathead County Commission has indicated that Wisconsin Avenue is a high priority and should be improved as funding becomes available.

If the problem is with the buses it's because the drivers are too lazy to put on chains. Perhaps the Big Mountain could post someone at the base to require the use of chains and snow tires.

I think the 32 foot road is a big gift from the taxpayer to the winter sport corp. With proper maintenance the old road will work just fine.

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

Best regards,

Orrin B. Webber III

OBW/jlf

Whitefish, MT.
Jan. 3-94

Rod Peterson
Montana Dept/CSSA
Helena, MT.

Please consider the concerns of us here as to the "Big MT." Road Project. We have to live with it for the next millennium or more here it is constructed. the impacts have not been adequately considered.

The intent of the new law, ISTEA, needs to be paid attention to - it has been implemented because of these particular needs that have not been employed in road building in the past.

Please follow the intent of this transportation law. thank you

Sincerely,
Geraldine Fagan

Comments noted.

Jan and Pete Metzmaker
915 Dakota Avenue
Whitefish, Montana 59937

Brad Peterson
Morrison-Maerle/CSSA
Box 6147
Helena, Montana 59640

RECEIVED
JAN 6 REC'D
MORRISON—MAIERLE/CSSA, INC

Dear Mr. Peterson,

My husband and I have some concerns which have not been adequately addressed in the plans to rebuild the Big Mountain Road here in Whitefish.

The proposed 40 foot wide road would result in some 150-200 foot vertical cuts on Big Mountain. These cuts would drastically affect scenic vistas throughout Flathead Valley. A 32 foot road would be more economical and would not alter the landscape as dramatically.

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

In addition, Whitefish has been in violation of air pollution regulations on numerous occasions. Encouraging more vehicles to drive up the Big Mountain instead of alloting for mass transit is ludicrous. If you have ever visited ski towns in Colorado, buses running at regular, convenient intervals provide an attractive alternative to driving and trying to park at the ski area.

Air Quality and mass transit are discussed in Sections 4.3. and 3.2.6.

Finally, we are home owning residents of the neighborhood that abuts Wisconsin Avenue. Our neighborhood is greatly concerned over traffic issues on Wisconsin Ave., yet you have no plans to address the increase in traffic a bigger Big Mountain will bring. It is already hazardous to walk, jog or ride a bike along Wisconsin Ave. and it is nearly impossible to access Wisconsin at certain hours of the day when skiers depart the ski area.

Section 2.9. recognizes the need and desirability of Wisconsin Avenue improvements but also indicates that no improvements projects are currently programmed. The Flathead County Commission has indicated that Wisconsin Avenue is a high priority and should be improved as funding becomes available.

We feel that it is your responsibility to address all the impacts that a new Big Mountain Road will bring. You should be concerned with the needs, safety and health of the entire community and not just the ability to move more cars at a quicker rate of speed up to the ski resort. We impress upon you to look to the future with an open, enlighted viewpoint.

Thank you,
Jan + Pete Metzmaker
Jan and Pete Metzmaker

RECEIVED

JAN 7 - 1994

MORRISON—MAIERLE/CSSA, INC

January 5, 1994

Brad Peterson
Project Manager
Morrison-Maierle/CSSA
P.O. Box 6147
Helena, MT 59604

Dear Mr. Peterson:

This letter is regarding a proposal to make the Big Mountain Road a "Limited Access Highway". We are land owners in Sections 2 and 3, Township 31 North, Range 22 West. Together, our lands total 160 acres.

Our current ingress and egress is off the Big Mountain Road through private ownership. We are in the discussion stage of obtaining a second access through another private owner so that we can better manage our land in the future.

We feel that to designate the Big Mountain Road a "Limited Access Highway" would certainly reduce the value of our property as well as create a potential for wildfire in the area.

Please consider our interests in your future discussions.

Very truly yours,

Charlene M. O'Neil

Charlene M. O'Neil for
Montana Forest Products Limited Partnership

Barbara E. Hall

Barbara E. Hall for
Roger L. O'Neil and Barbara E. Hall

P.O. Box 7038
Kalispell, MT 59904-0038
406-755-6432

If limited access control is implemented, it is likely that existing approaches will remain unless alternative acceptable access can be provided in another location. Other planned approaches may also be negotiated as part of the access control agreement with individual landowners. Future approaches will be generally prohibited. Landowners will be compensated for the loss of access.

920 Packrat Lane
Whitefish, Montana 59937-2123
January 7, 1994
Phone: (406) 862-0320

Mr. Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

Dear Mr. Peterson:

The comments contained in this document are in addition to those previously submitted in Attachments 1 and 2.

Our affiliation with this project is that we own 151 acres on Big Mountain, and the existing road passes through approximately ½ mile of our property starting at Station 110 (approximately).

Comment Noted

29

Respectfully submitted,

RICHARD C. HANEY

ANNA M. HANEY

ATTACHMENTS: 1. Comments on Big Mountain Road Alternatives, November 9, 1992
2. Big Mountain Road Environmental Assessment Comments, Dec 7, 1993

COVER

BIG MOUNTAIN ROAD
EA COMMENTS
PAGE 1 OF 4

COST ESTIMATES, PARAGRAPH 3.3, PAGE 3-12

Attachment 2, Page 2, indicates some of the errors which have been introduced into the EA by utilizing the 1:24000 topo map without any actual on-site measurements, or even on-site observations. With cost estimates based on the EA which is in error, one could conclude that the cost estimates are also in error, being lower than they should be for Alternative A and Alternative A-1.

During the public meeting on December 7, 1993, Brad Peterson, Morrison-Maierle, stated verbally that the lower switchback would probably require a retaining wall. If he believes this to be the case, the EA/EIS should include that item, for example, and the costs should be adjusted accordingly.

The preliminary design of the proposed project was based on the U.S.G.S. Maps at a scale of 1" = 2000' (1:24,000). They are adequate for the level of design required for the EA and for the determination of potential impacts. The maps have been supplemented by numerous field reviews and, where appropriate, field surveys and measurements. Once an alignment alternative has been selected, additional surveys will be completed for final design.

The preliminary design discussed in the EA will not require retaining walls. Retaining walls may be desirable, however, where they will help to substantially reduce the height and size of excavation and embankment.

AFFECTED ENVIRONMENT AND IMPACTS, PARAGRAPH 4

OLD GROWTH

The EA does not address old growth other than to call them "mature trees" in Paragraph 29, Page 5-5, which inaccurately paraphrases a comment we previously submitted in Attachment 1.

WITHIN THE ADDED R/W PROPOSED FOR ALTERNATIVE A AND ALTERNATIVE A-1, numerous Ponderosa Pine and Douglas Fir in excess of 200 years of age exist on our land. The oldest tree aged to date is a 314-year-old Douglas Fir.

Old growth was completely ignored by the EA.

These comments regarding the age of trees on this property are noted. No studies have been completed, as part of the environmental evaluation for this project, to determine the age of trees in this area. As indicated in Sections 1. and 4.13.3.2., trees will be removed only where required to allow construction of the new roadway and to provide an appropriate clear zone for safety. During final design, all measures that are practical and feasible will be evaluated and, where appropriate, implemented to reduce the amount of timber land affected by the project in this area. During final design, the horizonal alignment of the proposed new switchback curve will be carefully evaluated and optimized to provide for the least amount of disturbance while still providing the minimum 30 mph design speed. The practicality of using steeper, reinforced slopes or retaining walls will also be evaluated.

It should be noted that Alternative B-1 will impact substantially more trees than Alternative A-1.

DESIGN STANDARDS, PARAGRAPH 2.12, PAGE 2-2

ROAD WIDTH

The EA states that the minimum roadway width must be 40 feet, based on existing and projected traffic volumes.

In fact, the MDOT has a standing agreement with the FHA that allows building to a 32-foot width for specific projects. (Telecon with Dennis Unsworth, MDOT, January 3, 1994.) It is requested that the EA/EIS address the subject of a paved road surface of less than 40 feet, specifically 32 feet, and indicate the corresponding savings in cost, R/W acquisition area, and the corresponding reduced impact on the environment (e.g., scarring and screening required).

It is also encouraged that the EA/EIS address a proposed design which reduces from a 40-foot width in flatter areas to a 32-foot width in steeper areas, thus adapting to the terrain.

A monstrous 40-foot wide road grinding through the mountainside without regard for, or adaptation to, the impediments encountered will be disastrous to the landscape, destroying the natural beauty of the area in exchange for permanent, irreparable scars. We don't think that an improved 5-mile-long, 40-foot-wide cul-de-sac is worth the associated sacrifices.

(Would traffic count also justify "improving" the Going-to-the-Sun Road with a 40-foot or wider paved surface and in the process destroy the park just to get to Logan Pass? It may also be noted that at least Going-to-the-Sun Road isn't a cul-de-sac.)

Reasons why a 32 foot width is not appropriate for this roadway are discussed in Section 3.2.9.

It is correct that an exception can be approved by the Federal Highway Administration for any of the design standards, including roadway width, if there is a justification. With this roadway (with high motor vehicle traffic volumes; substantial pedestrian/bicyclist use; substantial existing and desired future increased use by buses; heavy snowfall; and substantial public opinion in favor of a 40 foot wide roadway) a design exception for a narrower roadway cannot be justified.

PURPOSE AND NEED, PARAGRAPH 2

"5. Improve safety throughout the project length and, in particular, in areas where accident rates are high."

It has been stated by Howard Gipe, Flathead County Commissioner who was a State Trooper at the time of the accident, that the only fatality on the Big Mountain Road occurred on a moonlit night when a motorcycle driver riding down without his lights on met a Volkswagen bus coming up the mountain also without lights. Although any fatality is a tragedy, the Big Mountain Road has an enviable safety record of having only this one.

The present road has curves with small radii which effectively act as speed bumps requiring people to slow down to negotiate the curves.

It is a dichotomy that making the Big Mountain Road "safer" from the standpoint of a count of material damage to vehicles will allow the motorists to achieve higher speeds and begin killing themselves at a higher rate.

The accident history of the Big Mountain Road, based on recorded accidents, is presented in Section 2.5. The Lower Switchback and the Upper Switchback have been identified by previous accident studies as high accident frequency locations.

The proposed project will, in addition to improving existing substandard horizontal curves, provide a safer highway with wider shoulders, improved grades and better sight distance. As indicated in Section 3.3., Alternative A-1 will not become a high speed highway -- it will be designed to meet standards for a design speed of 30 mph. There will be 4 horizontal curves with a design speed of 30 mph and 9 with a design speed of 40 miles per hour.

ATTACHMENT 1

920 Packrat Lane
Whitefish, Montana 59937-2123
Phone: (406) 862-0320
Nov 9, 1992

Mr. Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

Dear Mr. Peterson:

We strongly suggest that B-1 be the chosen alternative (rather than A or A-1) for the following reasons:

- Provides more gradual, safer route, with cuts/fills not visible from valley.
- With the present road, would provide 2 routes in case of emergency.
- Costs virtually the same as "improving" present route. Choosing A or A-1 would simply result in a patch job; ultimately, a long range solution would have to be addressed in the future, at greater expense.

It is acknowledged, and is discussed in the EA, that Alternative B-1 will have flatter grades and fewer sharp horizontal curves than Alternative A or A-1; will provide an alternate emergency route; and will cost approximately the same. It is also noted, however, that Alternative A-1 will meet current design standards for a roadway of this type.

We are the owners of a parcel of land through which Big Mountain Road passes from approximately Station 110 to 145, as referenced on your "Alternative Routes" drawing dated March 1992.

We are strongly opposed to both Alternative A and A-1 for the following reasons:

- Reference Station 113 (approx)

  The approach for the access road to our homesite including the gate and the level areas on both sides of the gate would be destroyed by road modifications.

  Suitable options have been identified and have been discussed with the landowner for reconstructing this approach.

- Reference Stations 117 - 126 (approx)

  Increasing radius of curve and the resulting fill required to shift the road laterally would place the theoretical toe of fill approximately 200 feet laterally from center of present roadway onto land which we presently own.

  Comment noted.

- Reference Stations 126 - 134 (approx)

  Beginning 330 feet laterally from the center line of the present road, a proposed 95-foot vertical cut would completely sever a logging road that gives us access to the upper portions of our property.

  Comment noted.

- Reference Stations 134 - 145 (approx)

  The A-1 alternative requires deviation of the road from its present route to pass through and obliterate some rather level land (of which we do not have an abundance) to make a new route to the east; this would create an island of (useless) land between A-1 and the present road to Ptarmigan.

  Comment noted.

- Trees in excess of 300 years of age would have to be removed within the Alternative A or A-1 right-of-way.

  Comment noted.

To put the size of the cut and fill referenced above (for either A or A-1) in perspective, this would exceed the size of the cut and fill at the Eagle's Nest, which can already be seen from most of the valley.

Comment noted.

For Alternative A, we question the logic that does little to the Eagle's Nest and Ptarmigan switchbacks and does horrendous modification to the switchback on our land. (A chain is as strong as its weakest link.)

Comment noted.

ATTACHMENT 1

PAGE 2

It is to be noted that we, as owners of property from which right-of-way would have to be acquired if route A or A-1 is selected, are directly affected. Moving the Big Mountain Road to pass over a portion of our present access road, making enormous cuts and fills which would also isolate use from portions of our property, losing portions of rather level land of which we do not have an abundance, creating an "island" of useless land, removing old growth trees are all items that have immense impact on our property, its worth, and the attractiveness of our forest.

For the residents of Haskill Basin, their concerns address land owned not by them but by Stolze.

It is urged that the points of this letter concerning Alternatives A and A-1 stand as a warning to those who may, after the fact, bemoan the unsightly appearance and scars resulting from selecting either A or A-1.

We invite those interested and will be available to personally escort any persons desiring an on-site tour of affected areas within our property boundaries.

Respectfully submitted,

RICHARD C. HANEY ANNA M. HANEY

Info: Flathead County Commissioners

Many of the comments in this letter are valid. These impacts have been previously identified and were considered in the environmental review process and were discussed in public scoping meetings and in the public hearing. Impacts of all other viable alternatives have also been identified and evaluated. As indicated in several sections of the EA, Alternative B-1 has the potential for serious environmental impacts and has received very substantial public opposition. Based on this comparison of all the alternatives and the considerable amount of information generated, the Flathead County Commission has selected Alternative A-1 as the preferred alternative.

ATTACHMENT 2

920 Packrat Lane
Whitefish, Montana 59937-2123
December 7, 1993
Phone: (406) 862-0320

Morrison-Maierle/CSSA
Attn: Mr. Brad Peterson, Project Manager
Box 6147
Helena, Montana 59604

Dear Mr. Peterson:

Following are our comments concerning the Environmental Assessment, Big Mountain Road, Project No. RS487-1(5)3.

Our affiliation with this project is that we own 151 acres on Big Mountain, and the existing road passes through approximately ½ mile of our property starting at Station 110 (approx.).

The size of the road proposed for Big Mountain is the same as Highway 40 between Highway 93 and the Blue Moon. It is hoped that the design will be adapted to the topography whereever "severe restrictions exist" (Ref. Section 4.15.3.), and that it not simply be a monster 40-foot paved surface grinding through the mountainside.

Comments noted.

36

ATTACHMENT 2

LOWER SWITCHBACK

4.15.2 (RIGHT-OF-WAY) POTENTIAL IMPACTS

Maximum width of A-1 = 320 feet

4.18.2 (VISUAL) POTENTIAL IMPACTS

Approximate maximum excavation depth of A-1 = 95 feet

Figure 3-1. BIG MOUNTAIN ROAD ALTERNATIVES STUDIED IN DETAIL

Drawing: Big Mt. Road ALT A1
T:XSEC10A1.DWG
4-2-92

Figure 3-1, which has been copied from USGS Map N4822,5-W11415/7.5, Whitefish, Mont., Scale 1:24000 (1 inch = 2000 feet) dated 1962, photorevised 1982, is the skeleton upon which the alternatives have been drawn. Topo lines are at 40-foot increments, too large a scale, it would seem, to give the detail necessary to perform an accurate environmental assessment. No on-site surveying has been accomplished as demonstrated by lack of any stakes/flagging.

The drawing referenced above contains profiles from Station 111+00 to 131+00 and, although not contained in the EA, was used to derive values which do appear in the EA. Each profile is in error by assuming from the large-scale topo map that the side slopes were less than actual.

As an example, the approximate 125-foot lateral displacement from the present road center at Station 124+00 would place the road in excess of 30 feet above a 55% side slope on the embankment (fill) side. The drawing indicates the side slope to be 18%. It would seem, even to a layman, that a retaining wall with guard rails would be necessary in the real world.

At Station 128+00, a 145-foot lateral displacement from present road center into the rock face on the excavation (cut) side would result, according to the referenced drawing in a 95-foot vertical cut with an assumed 31% side slope. Measurements of the actual side slope indicate 40 to 45% above a 120% rock cut. The present road has a rock cut in this area. A new road may also require a rock cut along this entire face.

To give a rough idea of the amount of material required to be moved for this "lower switchback" construction, it would, most likely, far exceed the fill for the new R/R viaduct in Whitefish.

It is suggested that serious consideration be given to modifying the proposed road and the radius of curvature especially at this topographically difficult switchback. An even wider road with a tighter radius of curvature may be an alternative.

This huge vertical cut from 126+00 to approx. 135+00 would sever a logging road which presently gives us access to the upper portions of our property. Any construction should ensure continuity of this logging road around the new construction.

These comments were addressed in previous sections of this letter.

37

ATTACHMENT 2

ACCESS/APPROACHES

4.10.3 (LAND USE) MITIGATION MEASURES

4.15.2 (RIGHT-OF-WAY) POTENTIAL IMPACTS

The EA gives no assurance that access to presently-approved approaches will be available subsequent to new construction. In fact, the EA addresses limiting access.

Any approved approach that presently exists should exist on the "new" road unless replacement or removal is negotiated with the landowner/s. If approaches are only occasionally used, as, for instance, logging roads, gates might be installed to limit access and prevent unauthorized use.

Although the EA is not a design document, various possibilities could have been indicated for the Ptarmigan approach and the intersection of the "old" road to the Eagle's Nest for the "preferred alternative" A-1. (Figure 4-2 indicates both sides of the present Ptarmigan switchback made unusable by the proposed new roadway.)

If limited access control is implemented, it is likely that existing approaches will remain unless alternative acceptable access can be provided in another location. Other planned approaches may also be negotiated as part of the access control agreement with individual landowners. Future approaches will be generally prohibited. Landowners will be compensated for the loss of access.

Alternatives and proposed design standards for the Ptarmigan approach are discussed in Section 4.10.2.2.

ATTACHMENT 2

REDUNDANT PAVEMENT/RIGHT-OF-WAY

Disposition of sections of old pavement which will no longer be used is not addressed.

Redundant pavement should be removed and the area returned to a natural state.

Any right-of-way and reworked, former pavement area which becomes redundant due to realignment should be returned to the adjacent landowner at the landowner's option. Area to be returned would be surveyed subsequent to completion of construction.

The disposition of asphalt pavement that is removed is discussed in Section 4.20. In areas where the existing roadway is abandoned and is not needed for access, the roadway will be obliterated and the area will be reshaped to match surrounding terrain, retopsoiled and reseeded.

Where right-of-way is no longer needed, it may be transferred to adjacent property owners during the right-of-way negotiation process.

ATTACHMENT 2

NATIONAL FOREST SERVICE BOUNDARY ERROR

Figure 3-1

Boundaries of the Flathead National Forest, as delineated on the USGS map, are incorrect on the south and west sides; should be further east and north. Ref. S11T31R22.

Comment noted.

40

ATTACHMENT 2

WILDFIRE RISK AND LACK OF ALTERNATE ESCAPE ROUTE

Selection of Alternative A-1 as the preferred route does not provide for an alternate escape route in spite of the fact that the Big Mountain Area is ranked as the highest wildfire risk of 165 areas evaluated by DSL. (Refer to Page 4-18.)

Flathead County Subdivision Regulations (Page 27) indicate the standard for maximum length cul-de-sac to be 1000 feet.

BIG MOUNTAIN ROAD IS A CUL-DE-SAC IN EXCESS OF 5 MILES IN LENGTH WITHIN AN AREA OF WILDFIRE RISK WHICH RANKS HIGHEST OF 165 AREAS EVALUATED IN THE 4 NORTHWEST COUNTIES OF MONTANA.

Officials of both the DSL and Flathead National Forest have mentioned not "if" but rather "when Big Mountain burns". (Refer to Note below.)

Perhaps an alternate escape route may be considered and become a reality after the area is destroyed by wildfire. Unfortunately, it may be too late for those who are unable to escape.

Comments noted.

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Note: Mike Degrosky, DSL, Kalispell
Ted Tveidt, USFS, Kalispell

ATTACHMENT 2

TIMBERLANDS

3.4 PREFERRED ALTERNATIVE (Page 3-15)

"-Alternative A-1 will not require the conversion of any productive timber lands to highway right-of-way (Section 4.14.)."

4.14.2 (Agricultural Lands) Potential Impacts

"Most of the area required for right-of-way for alternative A or A-1 is located adjacent to the existing roadway, has historically not been used for timber production and will probably not be used for significant timber production in the future, with or without the proposed project."

Comments noted.

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It is pointed out to Morrison-Maierle/CSSA that in Montana, there are approximately 11,000 non-industrial private forest owners with holdings of over 3 million acres (23% of the commercial forest land) which represent over twice the holdings of Plum Creek (after the purchase of Champion lands) with Stolze Land and Lumber holdings also included at approximately 33,000 acres. (Refer to Note, below.) It should not be assumed that private forest lands will not be logged. (In fact, it would be beneficial if all of Big Mountain were selectively logged, for example, to 20' by 20' spacing, to mitigate the extreme wildfire hazard.)

Impacts on Alternative A-1 of logging Big Mountain may well be greater than the impacts on Alternative B-1 of Stolze logging in Haskill Basin.

Note: Bob Logan, Stewardship Program Director, MSU Extension Forester

ATTACHMENT 2

We invite those interested and will be available to personally escort any persons desiring an on-site tour of affected areas within our property boundaries.

Respectfully submitted,

RICHARD C. HANEY ANNA M. HANEY

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES
AIR QUALITY BUREAU

COGSWELL BUILDING
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February 10, 1994

RECEIVED
FEB 15 1994
MORRISON—MAIERLE/CSSA, INC

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, MT 59604

Dear Mr. Peterson:

Subject: RS 487-1(5)3, Big Mountain Road

The Air Quality Bureau concurs with your December 13, 1993 letter that this project is exempt for conformity analysis under Paragraphs 93.134 of 40 CFR Parts 51 and 93, Air Quality: Transportation Plans, Programs, and Projects; Federal or State Implementation Plan Conformity; Rule.

This concurrance is noted in Section 4.3.2.

While the Air Quality Bureau agrees with your December 13, 1993 letter for the most part, the last paragraph which states that air pollution will be reduced due to a reduction in congestion and paving of the road is not entirely accurate. While it is true that emissions of carbon monoxide are generally reduced through a reduction of traffic congestion, PM-10 emissions are not reduced since PM-10 emissions are proportional with the amount of vehicle miles travelled. Additionally, since a major cause of PM-10 emissions in the Flathead Valley has been determined to be sanding materials ground up and swept into the air by vehicles on paved roads the Air Quality Bureau does NOT believe that because this road is to be paved there will be no significant impact on the attainment of the air quality standards from this project.

This has been clarified in Section 4.3.2.

43

Sincerely,

Gretchen Bennitt

Gretchen Bennitt
Air Quality Specialist

GB:ra